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ABSTRACT

This final report evaluates California State University's (CSU) Summer Bridge and Intensive Learning Experience (ILE) programs, which are remedial/developmental programs providing basic skills instruction, orientation, and advisement to entering CSU students at risk of dropping out. The underlying objective of both programs is to increase the enrollment and retention of underrepresented groups in the CSU system. The Summer Bridge program is a 3- to 6-week residential program for incoming students. The program provides instruction in English and mathematics, academic advising, counseling, and orientation to the university experience. The Intensive Learning Experience program offers remediation in English and mathematics via a full academic year of writing and/or math in small classes, along with academic advising. This final report summarizes findings from the first 3 years of the programs, focusing on student retention, performance, and adjustment to university life; program coordination; and campus acceptance and support. Highlights of the evaluation include the following: (1) both programs enrolled high percentages of underrepresented minorities, special admits, and underprepared students; (2) retention rates for Summer Bridge students were higher than those for students systemwide; and (3) retention of ILE students varied widely by campus program and ethnic group. (JDD)

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Minority Retention and Achievement: Evaluation of the California State University Summer Bridge and Intensive Learning Experience Programs

Final Report

1988

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MINORITY RETENTION AND ACHIEVEMENT: EVALUATION OF THE CALIFORNIA STATE UNIVERSITY SUMMER BRIDGE AND INTENSIVE LEARNING EXPERIENCE PROGRAMS

FINAL REPORT
Contract No. 25850030

Larry F. Guthrie

Grace Pung Guthrie

August 15, 1988

EXECUTIVE SUMMARY

In 1986, the Far West Laboratory for Educational Research and Development was contracted to conduct a comprehensive evaluation of the California State University's Summer Bridge and Intensive Learning Experience programs. These new remedial/developmental programs, funded initially for three years, are designed to provide basic skills instruction, orientation, and advisement to entering CSU students who may be most at risk of dropping out. The underlying objective of both programs is to increase the enrollment and retention of underrepresented groups in the CSU system.

The Summer Bridge program is a three- to six-week largely residential program for incoming first time freshmen and transfers. The primary focus of the program is on underrepresented minority students, but selection criteria include admission basis, test scores, first generation college student, participation in EOP, SAA, or other equity programs. The program provides instruction in English and mathematics, academic advising, counseling, and orientation to the university experience.

The Intensive Learning Experience program offers remediation in English and mathemetics to students scoring in the lowest quartile on the English Placement Test or Entry Level Mathematics examination. Program guidelines call for a full academic year of writing and/or math in small classes and academic advising for ILE students.

This Final Report summarizes findings from the first three years of the programs and represents one of several reports to be generated by the evaluation. Other documents include a set of indepth case studies of especially successful or innovative programs, Promising Practices for Minority Retention and Achievement: Case Studies of Summer Bridge and Intensive Learning Experience Programs; and two collections of campus program profiles, California State University Intensive Learning Experience Program Profiles; and California State University Summer Bridge Program Profiles.

The evaluation developed by Far West Laboratory focused on student retention, performance, and adjustment to university life; program coordination; and campus acceptance and support. This comprehensive evaluation provided the system and individual campuses with alternatives for improvement as well as information on effectiveness of the programs. In this report, the Summer Bridge and ILE programs were examined from these perspectives and reviewed against their overall objectives.

Program Selection Criteria and Enrollment

o Both Summer Bridge and ILE enrolled high percentages of underrepresented minorities, special admits, and underprepared students. In Summer Bridge, more than 70% of participants were American Indian, Black, or Hispanic, and more than 50% were special admits or scored in the bottom quartile on the ELM or EPT. In ILE, more than 40% of students were underrepresented minorities, and more than half, special admits. Virtually all had low EPT or ELM scores.

- Selection criteria appeared to be appropriate. For Summer Bridge, the flexibility afforded campuses in identifying students enabled them to tailor their recruitment to campus and community contexts. For ILE, ELM proved to be a reasonable predictor of retention. However, differential student performance and retention may justify a minimum ELM score and an upward adjustment in ELM and EPT cut-off scores.

- Significant numbers of eligible students were not enrolled in ILE. Roughly half of those students who met eligibility criteria for ILE were not served by the program. Administration dates for ELM and EPT, along with uneven enforcement of ILE identifcation and enrollment policies across campuses, contributed to this problem.

Program Implementation

- The quality of classroom instruction ranged from poor to very good in both Summer Bridge and ILE. Some instructors were experienced developmental math or English specialists, but others lacked training and expertise.

- Both Summer Bridge and ILE courses covered a wide range of academic levels. While some classes addressed sophisticated English or math skills, others covered fifth or sixth grade material.

- Part-time and low-rank instructors were the norm in both Summer Bridge and ILE. Part-time lecturers and graduate students taught most classes. Pay was low, and continuation of employment was not guaranteed.

- There were five organizational patterns in the ILE programs. These were centralized, coordinated, skewed, autonomous, and decentralized.

- ILE program design was influenced by existing developmental courses. In general, developmental English was more established on most campuses than was developmental math; as a result, many ILE math components were still in the experimental stage.

- The implementation of ILE on some campuses departed from the original program design. Compliance in enrolling students and class size was irregular; second term students were often served in combined ILE and non-ILE classes; students for whom English is a second language often had no special service; and advising in ILE was often perfunctory.

- Strong policy support from the highest levels facilitated ILE program implementaion. On campuses where policies were established that required students to take the ELM and EPT before their first term, identification and enrollment of students was improved.

- Summer Bridge was usually operated through the Educational Opportunity Program (EOP) Office and relied heavily upon EOP staff. Past experience and tradition made the EOP a logical place to house the Summer Bridge program.

- Coordination between ILE and Summer Bridge varied across campuses. On several campuses, coordination did not go beyond the formality of proposal sign-off; on only a few campuses was there a genuine linkage across programs.

- ILE Math programs were often underenrolled. Administration time for the ELM often made timely identification of eligible students difficult; many students sought alternative ways to prepare for the ELM; and lack of program development and faculty interest also contributed to poor enrollment.

Outcomes for Summer Bridge Students

- Most Summer Bridge students and staff were enthusiastic about the program. Students praised both the academic and orientation aspects of Summer Bridge. Staff devoted evenings and weekends toward making the program a success.

- Retention rates for Summer Bridge students were higher than those for students systemwide. This was true for the overall cohort, for regular admits, for special admits, and for underrepresented minorities. However, continued tracking of students will help answer the question of program effects on retention and graduation.

- Summer Bridge students felt better prepared to meet their academic goals. Survey data showed Summer Bridge students had experiences and attitudes more closely associated with adjustment to university life and persistence through graduation than did comparable groups of students.

- Data on academic improvement resulting from Summer Bridge are inconclusive. While there were indications that Summer Bridge students improved their math and English skills, the relatively short duration of the program, wide range of student abilities, and lack of appropriate comparisons made measurement of program effects on achievement difficult.

Outcomes for ILE Students

- Students appreciated ILE classes. Most of the students interviewed acknowledged that the classes provided valuable preparation for baccalaureate English and math. Those who did voice criticisms complained about the year-long sequence, lack of credit, poor instruction, or curricular level.

- Retention of ILE students varied widely by campus program and ethnic group. Overall rates of retention for ILE students were found to be no higher than those of ILE-eligible students, either in the same year, or from 1984. For special admits, however, ILE appreared to be more effective. The program was also effective with Asian/Pacific Islander, Filipino and Other Hispanic students. Retention rates of Blacks were consistently low.

- Achievement of ILE English students exceeded that of ILE math students. About 70% of ILE English students received grades of C or better in baccalaureate English, compared to 50% of ILE math students in baccalaureate math. In addition, a higher percentage of ILE students enrolled in baccalaureate English courses than in math.

o Further tracking by campus and systemwide will be necessary to answer the question of ILE effects on retention. Two-year retention rates cannot adequately measure persistence, and concentration on the second and third cohorts would provide a fairer estimate.

Recommendations

Based upon both the identified successes and weaknesses of the Summer Bridge and ILE programs, the external evaluation team has developed the following recommendations.

Recommendations for the Chancellor's Office/CSU System

- Continue to fund both the Summer Bridge and ILE programs.
- Develop mechanisms that will allow for information exchange among programs.
- Continue to build systemwide support for the programs.
- Reconsider ELM as a selection criterion for ILE.

Recommendations for Campus Program Implementation

- Increase the emphasis on General Education courses in Summer Bridge.
- Improve the linkage between Summer Bridge and ILE programs.
- Develop campuswide support.
- Strengthen efforts to serve Black students.
- Strengthen compliance with ILE program guidelines.
- Provide job security for part-time instructors.
- Improve the quality of instruction offered in ILE and Summer Bridge.
- Strengthen the advising component in ILE.
- Concentrate on improving the math component in ILE.
- Provide ESL instruction in ILE for limited-English-proficient students.

ACKNOWLEDGEMENTS

This final report represents the cumulative effort of the entire external evaluation team: Grace Pung Guthrie, Margaret Boothroyd, Evelyn Fuji Hawkins, Howard Tokunaga, Claudia Long, and Terri Johnson, the project administrative assistant. We owe special thanks to Ralph F. Baker, who was involved in the evaluation through the first year-and-a-half, participated in many of the site visits, but has since gone on to direct his own project.

We especially want to acknowledge the generous cooperation of all the Summer Bridge and ILE program directors throughout the duration of this evaluation. During our site visits, they, along with their staffs, forgave our intrusion and welcomed us to their campuses, often bending over backwards to arrange and rearrange schedules and provide us with the data we needed. We also appreciated the access and assistance given us by top university administrators and faculty on each campus. We must also thank the 200 plus students we interviewed across the programs; they were always cooperative and open, despite what must have appeared to be strange circumstances to some.

Without the support and guidance of Vicente (Bert) Rivas, Philip Garcia, and Kenneth Simms of the CSU Chancellor's Office, our task would have been impossible. Thanks are also due the staff of Analytical Studies at the Chancellor's Office, who provided us with much of the data upon which this report is based.

Finally, we extend our gratitude also to our project advisors, Adrianne Bank, M. Susana Navarro, John E. Roueche, and Joan Sallee.

Larry F. Guthrie
Principal Investigator

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CHAPTER ONE

INTRODUCTION

In 1986, the Far West Laboratory for Educational Research and Development was contracted to conduct a comprehensive evaluation of the California State University's Summer Bridge and Intensive Learning Experience programs. These new remedial/developmental programs, funded initially for three years, are designed to provide basic skills instruction, orientation, and advisement to entering CSU students who have a high potential for dropout or failure. This Final Report presents findings from the first three years of the programs, 1985-88.

The Summer Bridge and Intensive Learning Experience (ILE) represent a substantial investment in human and material resources and are part of a comprehensive educational equity effort that the system has undertaken. The underlying objective of both programs is to increase the enrollment and retention of underrepresented groups in the CSU system.

A thorough evaluation of these programs is an essential component of the overall effort because it provides the system and individual campuses with information on effectiveness of the programs as well as alternatives for improvement. In general terms, the evaluation developed by Far West Laboratory focuses on student retention, performance, and adjustment to university life; program coordination; and campus acceptance and support.

Other documents generated by the evaluation include a set of in-depth case studies of especially successful or innovative programs, Promising Practices for Minority Retention and Achievement: Case Studies of Summer Bridge and Intensive Learning Experience Programs; and two collections of campus program profiles, California State University Intensive Learning Experience Program Profiles and California State University Summer Bridge Program Profiles.

Summer Bridge and Intensive Learning Experience Programs

The underrepresentation of Hispanics, Blacks, and other minorities in the California State University system is well documented. Although Hispanic and Black youths constitute 23% and 8.9% respectively of the California population of 18-20 year olds, only 8.5% of Hispanics and 5.5% of Blacks meet eligibility index criteria for admission to CSU. In contrast, Non-Hispanic Whites make up 61.3% of 18-20 year-olds, but nearly 75% meet CSU eligibility requirements (CSU Commission on Hispanic Underrepresentation, 1984). There is thus a compelling need to focus on increasing university enrollment of Black, Hispanic, recently arrived Asian, and Native American students in California.

Many of those minorities who do enter the system are underprepared academically, first-generation college students, and/or financially disadvantaged. Minorities accounted for over 80% of those scoring in the lowest quartile on the English Placement Test (EPT) and nearly 50% of those scoring in the lowest quartile of the Entry Level

Mathematics Examination (ELM). In addition, nearly 70% of Black students and 38% of Hispanic students entering CSU do so via Special Admissions (CSU Division of Analytical Studies, 1985).

The Summer Bridge and Intensive Learning Experience programs represent a systemwide approach to improving the retention and performance of underrepresented minorities and underprepared students in general. While the programs share these long term goals, they differ in design, duration, and short term purpose.

The Summer Bridge program is a three- to six-week largely residential program for incoming first-time freshmen and transfers. The primary focus of the program is on underrepresented minority students, but selection criteria also include admission basis, test scores, first generation college student, participation in EOP, SAA, or other equity programs. In addition to instruction in English and mathematics, the program also provides academic advising, counseling, and orientation to the university experience.

The Intensive Learning Experience program offers remediation in English and mathemetics to those students scoring in the lowest quartile on the English Placement Test or Entry Level Mathematics Examination. Program guidelines call for a full academic year of writing and/or math in small classes with attendance required. Academic advising is also to be incorporated.

The Summer Bridge and Intensive Learning Experience Programs are important vehicles for developing, testing, and refining alternative and innovative strategies for improving the teaching/learning process and student adjustment to the university. What is learned from these programs will be vital to CSU as it seeks to manage changes in organization and standards that will facilitate improved recruitment, admission, and graduation of underrepresented minority students.

Overview of the Evaluation

The design of the external evaluation of the Summer Bridge and ILE programs was both summative and formative. A primary focus was on the degree to which the Summer Bridge and ILE programs met their intended goals, both individually and collectively. These goals included improved student learning, retention, and adjustment to university life. From a formative perspective, the evaluation examined program implementation and coordination, campus acceptance, and administrative support. The linkage of program features to successful outcomes provided a basis for program improvement.

The evaluation covered three cohorts of first-time-freshman (FTF) students enrolled in Summer Bridge and ILE from the summer of 1985 through June 1988. In addition, several comparison groups were identified for the evaluation: (a) a cohort of students scoring in the bottom quartile on EPT and/or ELM in the year prior to program initiation (1984); (b) those students who were eligible for ILE, but failed to enroll in the program; and (c) those students marginally exempt from ILE (between 25-35 percentile on EPT and/or ELM) in 1985-86 and 1986-87.

Multiple research strategies were employed in the evaluation. One major activity was the retrieval of student background, enrollment, retention, and performance data from systemwide data bases. This was accomplished through the cooperation of the Division of Analytical Studies in the California State University Chancellor's Office. A second major activity was to conduct site visits to campus programs. During the site visits, evaluation staff interviewed campus program coordinators, program staff, students, equity program personnel, and other faculty, and conducted observations of selected classes and activities. Finally, a survey measuring Summer Bridge student's adjustment to university life was administered in ILE classes in spring of 1987 and 1988. Between three and four thousand responses were received and analyzed each year.

Several products resulted from the evaluation in addition to this Final Report: Two collections of Program Profiles that provide brief and focused descriptions of campus programs and key program characteristics, and one volume of in-depth Case Studies of six especially successful or innovative programs that explore more fully the possible factors that contribute to program success.

Research Questions

Several research questions guided both the evaluation design and the analysis of results. These can be grouped into three broad areas: system and campus context, program implementation, and student outcomes.

System and Campus Context

The effectiveness of programs for students can best be interpreted if comparable descriptive data on student enrollment and university characteristics are included. An important point of comparison, for example, for student retention and performance will be similar figures for the entire system as well as for a particular campus. The local environments of universities--their enrollment, student population, support program linkages, and location--constitute a necessary context for generalizing across campuses and help to portray the conditions under which campus programs operate.

Program Implementation

The evaluation examined the implementation of programs from several perspectives, including program enrollment, campuswide acceptance and support, administration and staffing, and curriculum. Each of these is briefly described below.

Enrollment. An important set of questions revolves around the Summer Bridge and ILE enrollments and the effect of student selection criteria; what these are and how they are applied determines the extent to which the appropriate clientele are served by the program.

Selection of students for ILE is formula driven, the single criterion being ELM or EPT scores in the lowest quartile. For this program, the evaluation attempted to determine how the formula was applied, and whether it identified the students most in need of service. For Summer Bridge, a variety of selection criteria may be employed, so that specific program selection procedures needed to be assessed for their effectiveness in enrolling students who are most in need of service or come from underrepresented minority groups.

Acceptance and support. A critical variable was the place of the program within the overall fabric of the university and its coordination and acceptance. Remedial and developmental programs often suffer from isolation and stigmatization; they tend to succeed, on the other hand, when they become an institutional priority. Coordination with other equity efforts reduces duplication of services and at the same time allows participating students to take advantage of other programs. These are some of the issues addressed in interviews with program personnel, as well as other university faculty of entry-level baccalaureate English and math courses and educational equity program personnel.

Administration and staffing. With regard to program organization, program administration and staffing have been shown to be an essential component of program effectiveness. Programs gain status when they have administrative support and are integrated into regular departments (Maxwell, 1979; Obler, 1983) and linked in course content (Burnham, 1983). The choice of instructional and other staff may prove to be important as well, since some studies appear to show fulltime instructors to be an important ingredient in program success (Roueche & Snow, 1978). These program features were a high priority of the evaluation during site visits and in review of program documents.

Curriculum and instruction. Another important program element is the curriculum. The curriculum content and its articulation with baccalaureate courses has been found to be a prime factor in student success and persistence. Courses should be useful, pragmatic, and feed directly into the regular courses. Other issues of interest in Summer Bridge include the types of other experiences provided students (lectures, tours, advising), and the time allocated to them, and the extent to which the program is integrated into university life through the participation of instructors, departments, and other service units.

Among the features of instructional delivery focused on in the evaluation are the amount of direct instruction from the teacher, opportunity to learn, tutoring, and individualization. This evaluation plan included multiple measures of these variables reflecting not only the adequacy of basic skills instruction in English and mathematics, but the effectiveness of orientation and advising efforts as well.

Student Outcomes

The final set of questions concerns the outcomes for students. The major expected outcome for both Summer Bridge and ILE is retention in the university. In addition, certain academic outcomes are expected for ILE. ILE students should, for example, exhibit adequate performance in subsequent baccalaureate English and mathematics. An additional goal for Summer Bridge students is improved adjustment to college life. For the most part, these data were part of the student tracking process that utilized both campus program and systemwide student databases.

These questions illustrate the FWL conviction that the CSU system and individual campus programs will benefit most from an external evaluation that extends beyond a narrow set of outcome data. Descriptions of essential aspects of program components allowed us to account for program success and design program improvement. If the evaluation was to be formative as well as summative, then information on a range of variables associated with program design and operation was needed.

Design of this Report

The remaining chapters in this report present findings from the evaluation.

Chapter Two examines the student sample for the evaluation from several perspectives: by campus, ethnicity, admission basis, and ELM and EPT scores. The relationship between program enrollment and selection procedures is discussed.

Chapter Three describes the Summer Bridge and Intensive Learning Experience programs as implemented across the CSU system. Administration, staffing, curriculum, campus context, and campus support are among the program features compared across campuses.

Chapter Four presents data on outcomes for students. These include continued enrollment, performance in baccalaureate courses, and, for Summer Bridge students, adjustment to university life. Where possible, results for program students are compared to those for students in identified comparison groups or with the system as a whole.

Chapter Five summarizes conclusions that may be drawn from the evaluation and offers recommendations.

CHAPTER TWO

SUMMER BRIDGE AND ILE STUDENT SAMPLE

This chapter describes the sample of students included in the evaluation of the Summer Bridge and Intensive Learning Experience (ILE) programs. Procedures for data gathering and access are first described; then data on the enrollment in each program are presented. Three cohorts of students in each program are described, covering the 1985-86, 1986-87, and 1987-88 academic years. Enrollment data are then examined by campus, ethnicity, admission basis, and scores on the ELM and EPT. Differences in selection criteria for each program determine, to some extent, which data are presented.

Data Gathering and Access

An important task over the first year of the external evaluation was to develop an efficient process for gaining access to CSU system data. This was accomplished through a coordinated effort involving Far West Laboratory (FWL), Retention Services, the Division of Analytical Studies, and the Summer Bridge and ILE program directors on each campus. In general, the procedure has been to match rosters of enrolled students in each program with system data bases. All subsequent analyses of student enrollment, retention, and performance in the evaluation are then based upon this matched sample.

Each fall, campus program directors submitted to Far West Laboratory a roster of enrolled students. A computer data base containing rosters from all campuses was then developed and saved on magnetic tape, which was, in turn, transferred to the Division of Analytical Studies in the Chancellor's Office. There, identifiers for students were matched against systemwide data bases, from which background and enrollment data were retrieved.

Results of this complex matching process for the Summer Bridge and ILE participants in each cohort are presented in Tables A.1 and A.2 in Appendix A. In each case, cohort match rates exceeded 90%; at the campus level, only one match rate was below 75%, and most were near 100%. This means that the student sample on which analyses were conducted is a virtually total sample.

Summer Bridge

Enrollment by Ethnicity

The primary goal of the Summer Bridge program is to increase the enrollment and retention of underrepresented minority students, in particular, Blacks and Hispanics. Enrollment data from each campus, therefore, have been analyzed in terms of the ethnic codes used in the Enrollment Reporting System (ERS) data base. Breakdowns of Summer Bridge enrollment by campus and ethnicity for each cohort are presented in Tables A.3, A.4, and A.5 in Appendix A.

Systemwide. Enrollment data show that, systemwide, the Summer Bridge program attracted large numbers of underrepresented minority students. Of the 2330 students taking part in the 1985 program, Mexican Americans made up 34.1%; Other Hispanics, 6.7%; and Blacks, 27.8%. These three groups together accounted for nearly 70% of Summer Bridge enrollment -- nearly five times the Black and Hispanic enrollment of first-time freshmen systemwide (17.8%) in the same year.

Over the first three years of the program, participation of underrepresented minority students increased. This fact is shown in Figure 2.1, which graphs data from Tables A.3 -- A.5. In 1985, Native Americans, Blacks and Hispanics totalled 1648 and accounted for 70.7% of Summer Bridge enrollment. In 1987, these groups made up 80.9% of Summer Bridge students, an increase of 180 students.

Among particular ethnic groups, Hispanics have shown the greatest increase over the three years of the program, from 952 students in 1985 to 1124 in 1987, an increase of 18%. By contrast, Black enrollment went from 648 students in 1985 to 673 in 1987, an increase of only 4%; and participation of Whites over the same period dropped from 160 to 115, a decrease of nearly 30%.

Campus enrollment. Figure 2.2 shows the number and proportion of underrepresented minority students participating in Summer Bridge at each campus in 1987. Values on the graph represent the total number of students taking part in each program; the percentage of underrepresented minority students follows each campus name.

In examining these data, the proportion and actual number of underrepresented students enrolled were considered from two perspectives, program size and minority enrollment among freshmen on campus.

o Summer Bridge program size varied widely. Campus enrollments ranged from less than 50 to over 300. Nearly half the campuses had enrollments of over 100 students, and four (Los Angeles, Fresno, Northridge and San Diego) served more than 200. At the same time, five smaller campuses (Chico, Humboldt, San Bernardino, Sonoma and Stanislaus) enrolled fewer than 50 students.

o High proportions of underrepresented minority students were mirrored in campus programs. In 1987, Blacks and Hispanics accounted for over 75% of the participants at ten campuses; another seven had enrollments between 50% and 75%.

o Program size did not seem to be related to high minority enrollment. Of the ten programs having the greatest proportion of minority enrollment, four served over 200 students (Fresno, Los Angeles, Northridge, and San Diego); two programs enrolled between 100 and 200 students (Long Beach and Pomona); and the remaining three ran smaller programs (Humboldt, Sacramento, and San Bernardino).

o Six programs served over 100 Black and Hispanic students. Fresno, Fullerton, Long Beach, Los Angeles, Northridge and San Diego

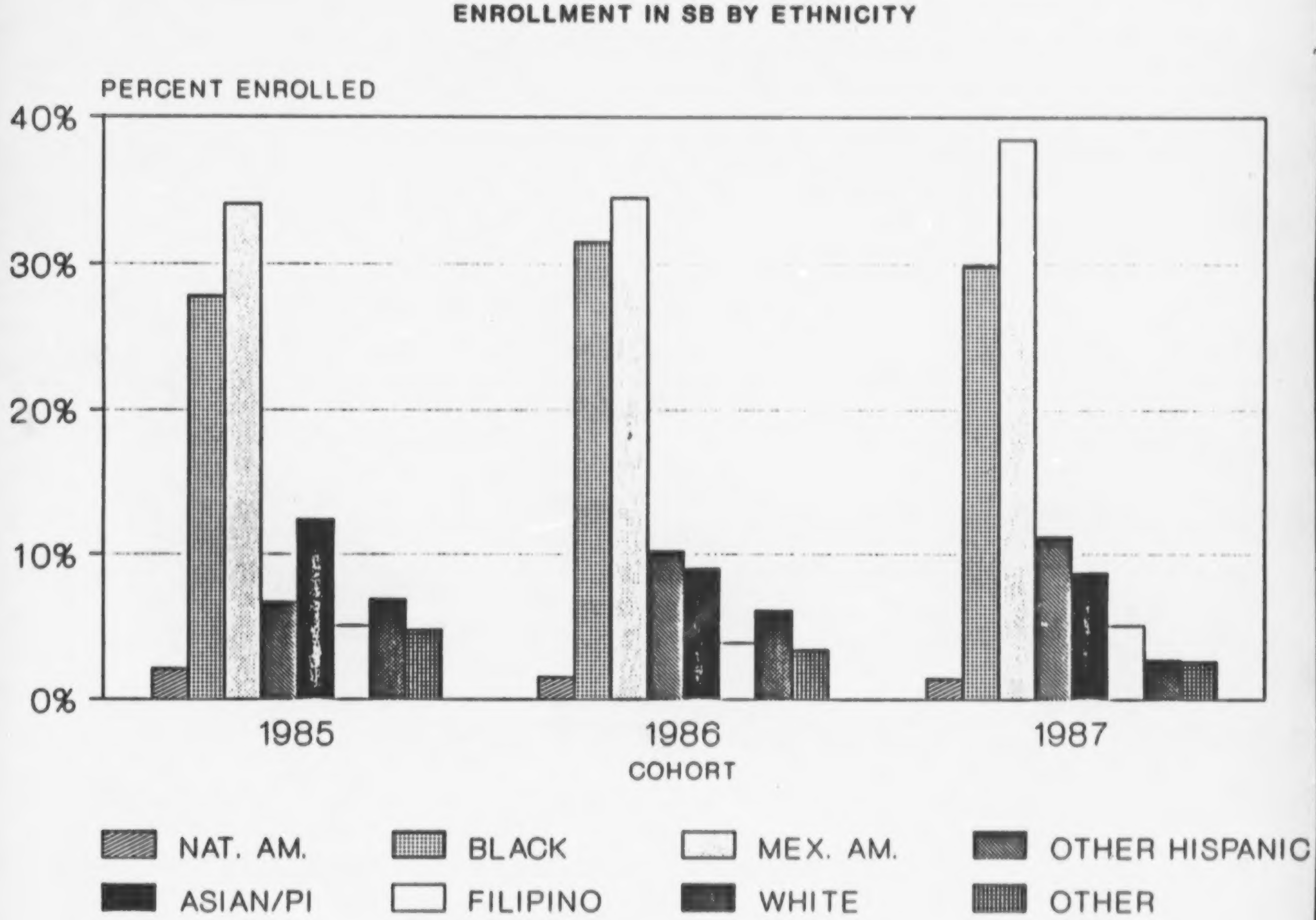

ENROLLMENT IN SB BY ETHNICITY
PERCENT ENROLLED
40%
30%
20%
10%
0%
1985
1986
1987
COHORT
NAT. AM.
BLACK
MEX. AM.
OTHER HISPANIC
ASIAN/PI
FILIPINO
WHITE
OTHER

FIGURE 2.1

MINORITY ENROLLMENT IN 1987-88 SB

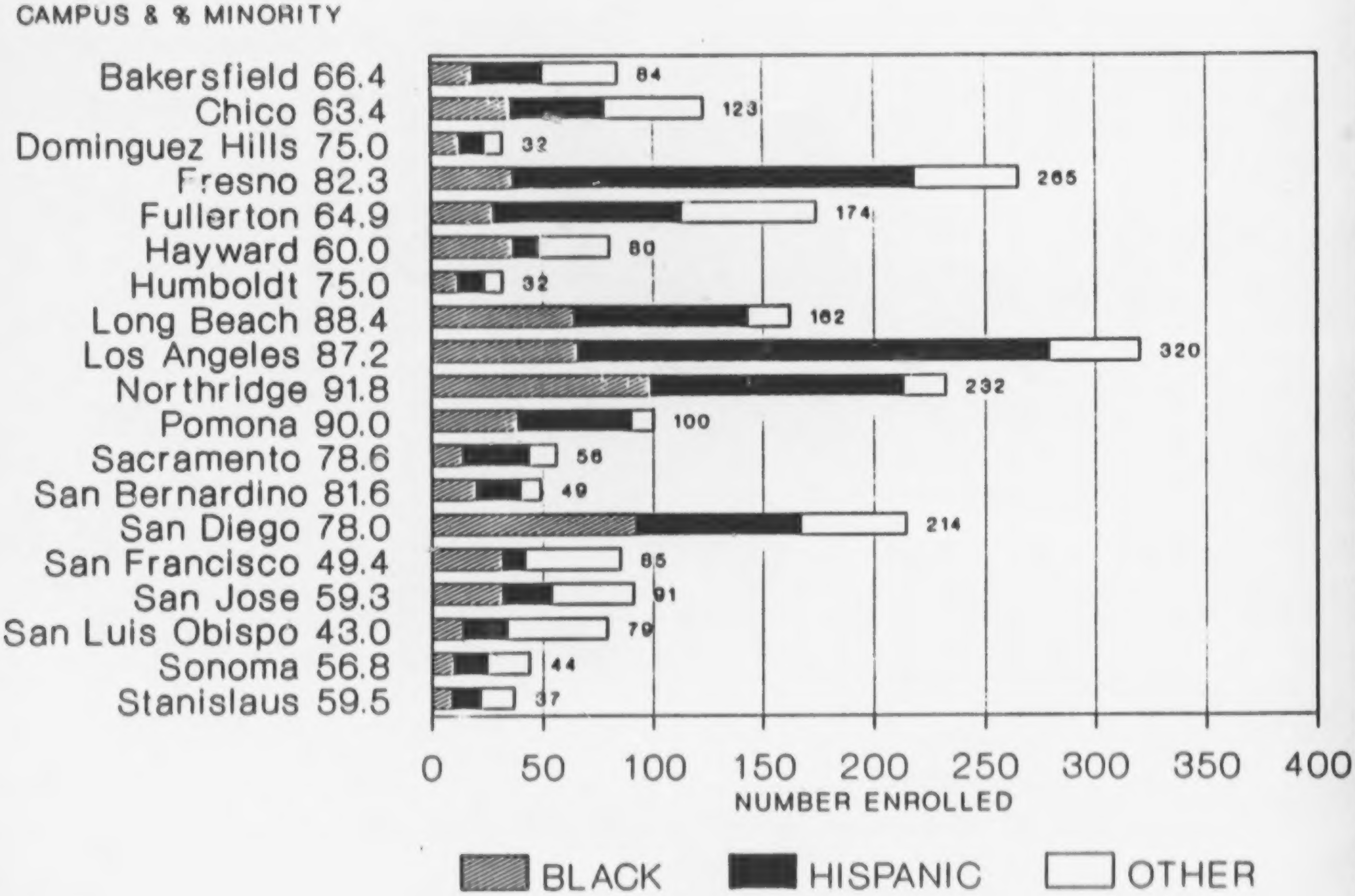


FIGURE 2.2

enrolled between 100 and 300 students. While the proportion of students within each program is an important measure of their enrollment procedures, the actual number of Black and Hispanic participants must also be considered.

Ethnic representation among the freshman class is an additional standard against which to measure programs, since it, to some degree, reflects the pool from which programs can select students. In 1986, representation of Blacks and Hispanics in the freshman class across campuses ranged from 8.4% (San Luis Obispo) to 56.9% (Dominguez Hills). Systemwide, the figure was 19.1%. Of those 1987 programs having the greatest participation (over 75%) among underrepresented minorities, four had freshman minority enrollments of less than 20% (Humboldt, Long Beach, Sacramento, and San Diego). Only Dominguez Hills and Los Angeles had enrollments of over 40%.

Programs also showed different concentrations of Black and Hispanic students . As Figure 2.2 shows, for example, the Fresno, Los Angeles, and San Bernardino programs had high concentrations of Hispanic students (over 60%) in 1987; Dominguez Hills, Hayward, Northridge, San Bernardino and San Diego programs were over 40% Black. The highest proportions of Asian students (over 20%) were found at Fullerton, Hayward, and San Jose campuses. These distributions differed only slightly from those of the first two years of the program.

In general, enrollment patterns in campus programs persisted across the three years of the program. High percentages of underrepresented minorities were maintained, and the relative size of ethnic enrollments at campus programs remained fairly constant. There were, however, some interesting variations:

Participation of underrepresented minorities increased dramatically on some campuses (see Appendix A). San Bernardino, for example, recruited 14 more Black students for an increase of over 200%. Among the larger programs, San Diego added 38 more Blacks, a 70% rise, and Los Angeles enrolled 19 more (40%). Large increases in Hispanic enrollment were seen at San Diego (71%), Los Angeles (34%), and Long Beach (31%).

Enrollment by Admission Basis

An important selection criterion in identifying students for Summer Bridge is their admission basis. Summer Bridge seeks to provide extra orientation and basic skills instruction to those students most at risk, and because special admits may lack academic preparation, or be in financial need, they are a target group. Since academic preparation is an important part of Summer Bridge, in this section, the admission basis of Summer Bridge students is examined relative to ILE participation and EPT/ELM scores.

Table 2.1 displays the admission basis for Summer Bridge students for 1985, 1986, and 1987. For each cohort, enrollment levels and percentages are reported for Alternate, Regular, and Special Admit students. Summer Bridge enrollment is presented relative to ILE

Table 2.1

Summer Bridge Cohorts by Admission Basis

	Admission Basis			
	Alternate	Regular	Special	Total
1985-6				
SB Only				
<25%	15 (4.8)	87 (27.9)	210 (67.3)	312 (13.4)
25-35%	1 (1.1)	34 (38.2)	54 (60.7)	89 (3.8)
>35%	17 (1.9)	506 (57.3)	360 (40.8)	883 (37.9)
SB-ILE	10 (1.0)	211 (20.2)	825 (78.9)	1046 (44.9)
Total SB	43 (1.8)	838 (35.9)	1449 (62.2)	2330 (100.0)
1986-7				
SB Only				
<25%	4 (1.0)	107 (27.9)	273 (71.1)	384 (16.1)
25-35%	1 (0.7)	49 (34.0)	94 (65.3)	144 (6.1)
>35%	65 (6.7)	490 (50.8)	409 (42.4)	964 (40.5)
SB-ILE	8 (0.9)	150 (16.9)	728 (82.2)	886 (37.3)
Total SB	78 (3.3)	796 (33.5)	1504 (63.2)	2378 (100.0)
1987-8				
SB Only				
<25%	-	84 (26.3)	236 (73.8)	320 (14.2)
25-35%	1 (.8)	41 (32.0)	86 (67.2)	128 (5.7)
>35%	72 (9.10)	408 (51.6)	311 (39.3)	791 (35.0)
SB-ILE				
Math	4 (2.1)	26 (13.8)	159 (84.1)	189 (8.4)
English	11 (2.0)	116 (21.6)	411 (76.4)	538 (23.8)
Math/English	-	29 (9.9)	264 (90.1)	293 (13.0)
Total	88 (3.9)	704 (31.2)	1467 (64.9)	2259 (100.0)

participation. "Summer Bridge Only" includes those students who were enrolled in Summer Bridge, but did not continue to ILE. Students participating in both programs are designated "SB-ILE" on the table. For 1987, SB-ILE is divided into program component: Math, English, or Math/English.

Within the Summer Bridge Only group, students are further categorized by EPT/ELM scores: Bottom quartile on either exam; between 25% and 35% on either exam; and above 35% on both exams. Those scoring in the bottom quartile in Summer Bridge Only were eligible for ILE, but, for whatever reason, did not participate in the program. Several conclusions can be drawn from these data:

o Approximately two-thirds of Summer Bridge students were Special Admits. For 1985, 1449 (62.2%) of Summer Bridge participants were Special Admits; for 1986, the figure was 1504 (63.2%); and for 1987, 1467 (64.9%). In addition, the relative proportion of Special Admits increased in each year of the program.

o ILE participation among Summer Bridge students ranged from 40-45% over the three years. While nearly half the Summer Bridge students went on to ILE in 1985 (45.9%) and 1987 (45.2%), in the second year, these students accounted for less than 40% of the total.

o Summer Bridge attracted underprepared students. More than half of Summer Bridge students scored in the bottom quartile on either ELM or EPT. The ILE and bottom quartile groups accounted for over half the Summer Bridge enrollment in each year (58.3% in 1985, 53.4% in 1986, and 59.4% in 1987). Among special admits, over two-thirds met this criterion (72% in 1987).

o Linkage with ILE could be improved. In each year, over 300 Summer Bridge students eligible for ILE (scored in the bottom quartile on one of the exams) did not participate. In 1986 and 1987, they accounted for nearly one-third of the eligible students.

o Summer Bridge recruited a significant number of academically able students. Over 40% of the students either passed both exams or were marginally exempted from ILE. Among Special Admits the figure is closer to 30%.

Intensive Learning Experience

This section presents data on ILE enrollment by ethnicity and admission basis. Selection for ILE is formula-driven: First-time-freshman students scoring in the bottom quartile on the EPT and/or ELM are eligible for the program. A score of 141 or below on EPT and 25 or below on ELM determine students' eligibility for the program. While students' ethnic background is not a selection criterion, an underlying goal is to improve the retention of high risk minority students. As such, before examining the ethnic and campus distribution within the ILE sample, we look first at ethnic representation in the pool of eligible students in each year.

Enrollment by Ethnicity

The focus of this section is ethnic enrollment in ILE, both systemwide and by campus. While ethnicity is not a specific selection criterion for ILE, increasing the retention and performance of minority students is an important underlying goal. Data on systemwide enrollments are compared to the eligibility data discussed in the previous section. Available data for the evaluation for the 1985-6 and 1986-7 cohorts do not separate English and mathematics enrollments; however, data collection for 1987-8 was adjusted to reflect enrollments by discipline.

Systemwide. Tables A.6, A.7, and A.8 (Appendix A) display the matched ILE enrollment figures for each cohort. Table A.6 shows that in the first year, a total of 4693 students were enrolled in ILE; of these, 24.6% were White, 23.4% were Asian; Mexican-American and Black students accounted for 18.9% and 18.6% respectively. Figures for 1986-7 ILE programs were comparable: Of the 3804 students enrolled, 25.6% were White, 22.7% Asian, 19.7% Black, and 16.2% Mexican American. In 1987-8, the composition of ILE was 23.8% Asian/Pacific Islander, 21.8% White, 19.5% Black, and 19.1% Mexican American.

o ILE enrolled large percentages of underrepresented minority students. In each cohort, Black and Hispanic made up over 40% of ILE enrollment systemwide. At the same time, Asians and Whites each accounted for about one-fifth of the students.

Over the first three years of the ILE program, total enrollment appeared to drop by 18%, from 4693 to 3836. Enrollments at some campuses fell more than 25%. Only Northridge showed a significant increase, enrolling an additional 86 students in the second year. This apparent decrease in enrollment can be attributed to the timing for collection of enrollment data. Figures for the second and third years were based upon fall enrollment data only. Data for the 1985-6 cohort, on the other hand, were collected retrospectively and included spring enrollees, because the external evaluation was not contracted until the spring of 1986.

Data collection procedures for 1987-8 were improved so that enrollment figures could be broken down by program component (English and Mathematics). These data are displayed in Table 2.2 and reveal the following.

o ILE is largely an English program. Over 75% of ILE students enrolled in English courses compared to 40% in math. Whereas 60% of students participated only in English, less than 25% took math alone.

o Participation by ethnic group varied widely across the program components. Underrepresented minorities make up near three-fourths (72.6%) of those students enrolled in both English and Math, but accounted for roughly 40% of the single component enrollment. While ILE Enlish enrollment was 36.5% Asian, that group accounted for only 5.9% of ILE math. White students, on the other hand, made up 41.3% of ILE math enrollment, but only 16.3% of English.

Table 2.2

1987-88 ILE Enrollment: Ethnicity by Program Component

Program Component	Nat. Amer.	Black	Mex.-Amer.	Other Hisp.	Asian/ Pacific. Islander	Fil.	White	All Other	Total
Math	14 1.5 %	191 20.7%	167 18.1%	55 6.0%	49 5.3%	25 2.7%	380 41.3%	40 4.4%	921 24.0%
English	12 .5	363 15.6	393 16.9	144 6.2	848 36.5	113 4.9	379 16.3	75 3.3	2327 60.7
Both	11 1.9	193 32.8	171 29.1	63 10.7	35 5.9	18 3.1	79 13.4	18 3.1	588 15.3
Total	37 1.0	747 19.5	731 19.1	262 6.8	932 23.8	156 4.1	838 21.8	133 1.6	3836 100.0

Available scores on the EPT and ELM, to some extent, explain the first point. Three-fourths of those students for whom EPT and/or ELM scores were available were eligible for English, while only two-fifths were eligible for math. Of the 2701 students in the 1985-6 ILE cohort for whom scores were available, 49.1% were eligible because of their EPT score alone; 17.1% scored in the bottom quartile on the ELM; and another 24.1% scored below the criterion on both exams. The remaining 9.7% of the students were eligible on neither exam. Since programs have some flexibility regarding the enrollment of ineligible students when space is available, the last figure might be expected. However, the number of ineligible students for whom scores are unavailable is not known.

Campus. Figure 2.3 graphically represents program size and enrollment of underrepresented minorities in the 1986-7 program. From these data, along with the tables discussed above, the following points can be made:

o ILE enrollment at campuses ranged from less than 100 students to over 700. Seven campuses enrolled 200 or more students in ILE (Fullerton, Long Beach, Los Angeles, Northridge, San Diego, San Francisco, and San Jose). The smallest programs were at Humboldt, Bakersfield, San Bernardino, and Stanislaus. All but two campuses in 1985-6 and one in the two subsequent years operated ILE programs.

o Some programs served about 300 underrepresented minority students each year. In 1986-7, the largest enrollments were at Northridge (313), San Diego (304), and Los Angeles (290).

o Four campuses enrolled over 50% underrepresented minorities in their ILE classes: Dominguez Hills, Bakersfield, Fresno, and San Bernardino.

o Asians were heavily represented at several campuses. San Francisco, San Jose, Los Angeles, Pomona, and Fullerton each enrolled over 100 Asians in ILE.

Enrollment by Admission Basis

Table 2.3 presents data on the ILE sample by Admission Basis. Also included on this table is information on the 1984-5 comparison cohort identified by the Division of Analytical Studies from system data bases. For each cohort, the number and percent of students admitted within each catagory are presented. In the 1985-6 cohort, for example, 2077 (44.3%) students were Special Admits out of a total sample of 4693. Within the ILE cohorts, three groups of students are presented: Identified ILE students, ILE-eligible students who were not enrolled in ILE classes, and Marginal students (those scoring just above the eligibility criterion for ILE). Additional breakdowns by program component are provided for 1987-8. Since there was no ILE program in 1984-5, figures for only ILE-eligible and Marginal students are presented. Conclusions that can be reached from these data are the following:

MINORITY ENROLLMENT IN 1986-87 ILE

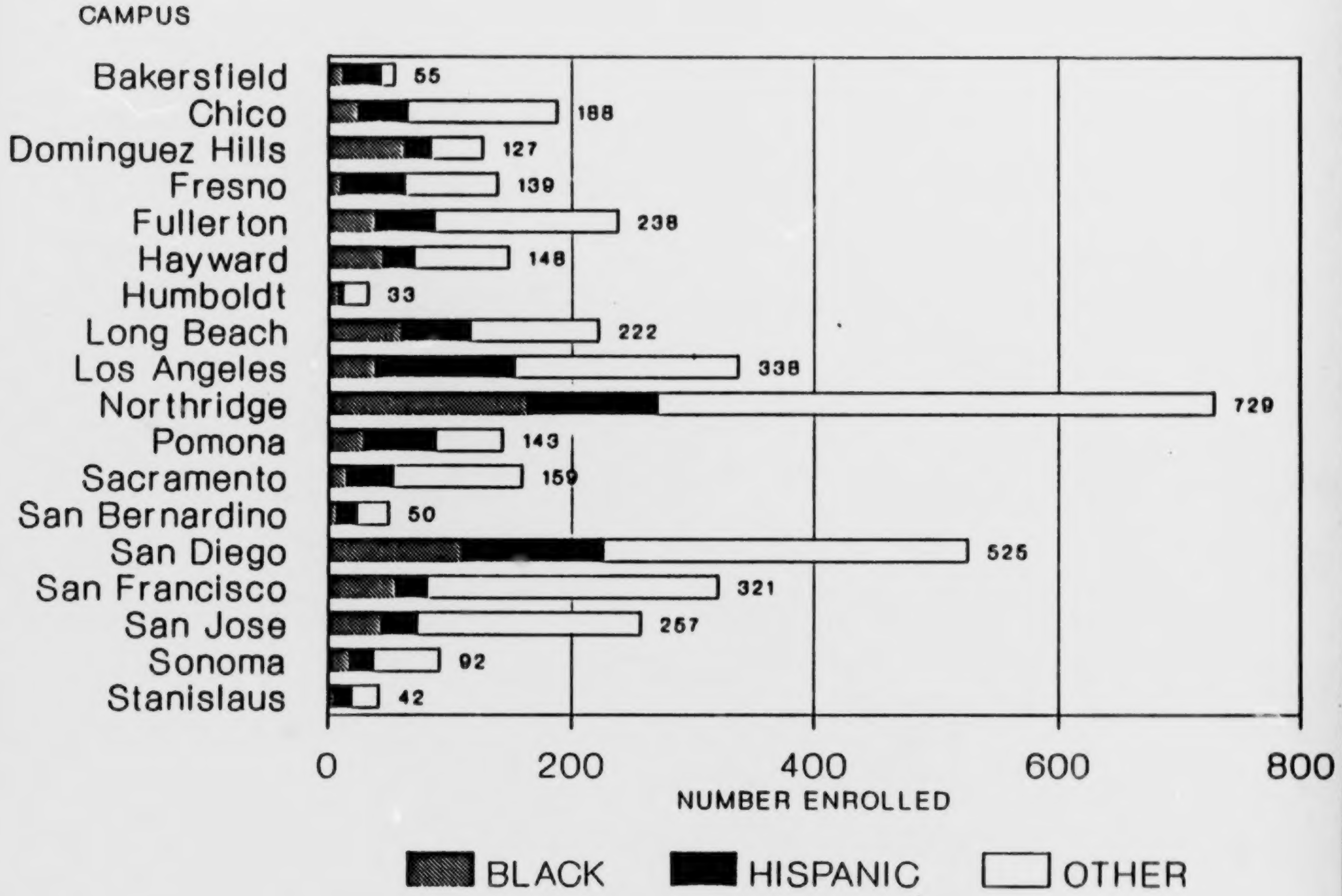


FIGURE 2.3

Table 2.3
ILE Cohorts by Admission Basis

	Admission Basis			
	Alternate	Regular	Special	Total
1984-5				
ILE Eligible <25%	34 (0.7)	2787 (59.1)	1898 (40.2)	4719
ILE Marginal 25-35%	5 (0.3)	1257 (78.9)	332 (20.8)	1594
1985-6				
ILE	79 (1.7)	2537 (54.1)	2077 (44.3)	4693
ILE Eligible <25%	56 (2.4)	1579 (66.8)	730 (30.9)	2365
ILE Marginal 25-35%	12 (0.8)	1308 (83.8)	241 (15.4)	1561
1986-7				
ILE	132 (3.7)	1952 (51.3)	1720 (45.2)	3804
ILE Eligible	80 (2.5)	2061 (64.2)	1067 (33.3)	3208
ILE Marginal 25-35%	21 (1.2)	1381 (79.3)	339 (19.5)	1741
1987-8				
ILE	142 (3.7)	1921 (50.1)	1773 (46.2)	3836
Math	67 (7.3)	470 (51.0)	384 (41.7)	921 (24.0)
English	71 (3.1)	1325 (56.9)	931 (40.0)	2327 (60.7)
Math/English	4 (.7)	126 (21.4)	458 (77.9)	588 (15.3)
ILE Eligible <25%	74 (2.3)	2074 (64.9)	1050 (32.8)	3198
ILE Marginal 25-35%	21 (1.2)	1420 (80.2)	329 (18.6)	1770

o ILE enrollment is about equally divided between Special and Regular Admits. In 1985-86, 54.1% were Regular Admits and 44.3% were Special Admits; for the 1986-87 cohort, these figures were 51.3% and 45.2%, respectively; and for 1987-88, 50.1% and 46.2%.

o Students enrolled in both ILE Math and English were predominantly Special Admits. In 1987-88, 77.9% of the students enrolled in both were Special Admits.

o Comparison groups within cohorts showed different patterns of admission basis. Among ILE-eligible students, only about one-third (32.8% in 1987-88) were Special Admits. The Marginal group included even fewer Special Admits (18.6% in 1987-88). A similar pattern of admission for the Marginal group was found in the 1984-85 and 1986-87 comparison cohorts.

o Significant numbers of eligible students were not enrolled in ILE. ILE-eligible students in 1985-86 numbered 2365 (33.5% of the eligible pool); in 1986-87, there were 3208 (45.8%); and in 1987-88, 3198 (45.5%).

To investigate enrollment compliance futher, enrollment data were considered from two perspectives, ILE eligibility and enrollment by campus and within Summer Bridge. Figure 2.4 compares the number of students enrolled in ILE with those eligible in 1986-87 at each campus.

o Enrollment of eligible students varied widely across campuses. Five programs enrolled more than 70% of the ILE-eligible students (Chico, Dominguez Hills, Hayward, Northridge, and Sonoma). At the other extreme, seven others captured less than 50% of those students who were eligible (Fresno, Humboldt, Long Beach, Los Angeles, Pomona, San Bernardino, and Stanislaus).

Several factors may account for the discrepancies between the number of students eligible for ILE and those actually enrolled. One possibile explanation is that students delayed taking the EPT or ELM until after ILE classes were formed. Another is that accurate and timely data on test scores is not always readily available to program directors. This was an issue on several campuses and is discussed in Chapter Three. A third explanation is that campuses apply eligibility rules weakly. While some campuses require students to enroll in ILE, others merely offer it to eligible students. This issue is also covered in the next chapter. Finally, in the case of Long Beach, these data are based upon the initial year of the program, and may reflect difficulty in start-up.

A conclusion drawn earlier was that coordination between Summer Bridge and ILE could be improved (see Table 2.1). To explore this issue futher, the participation of Summer Bridge students in ILE at each campus was examined. Figure 2.5 compares the percent of Summer Bridge students who took part in both Summer Bridge and ILE with the percent who were ILE-eligible at each campus. Program size is indicated to the left.

1986-87 ILE ENROLLMENT AND ELIGIBILITY

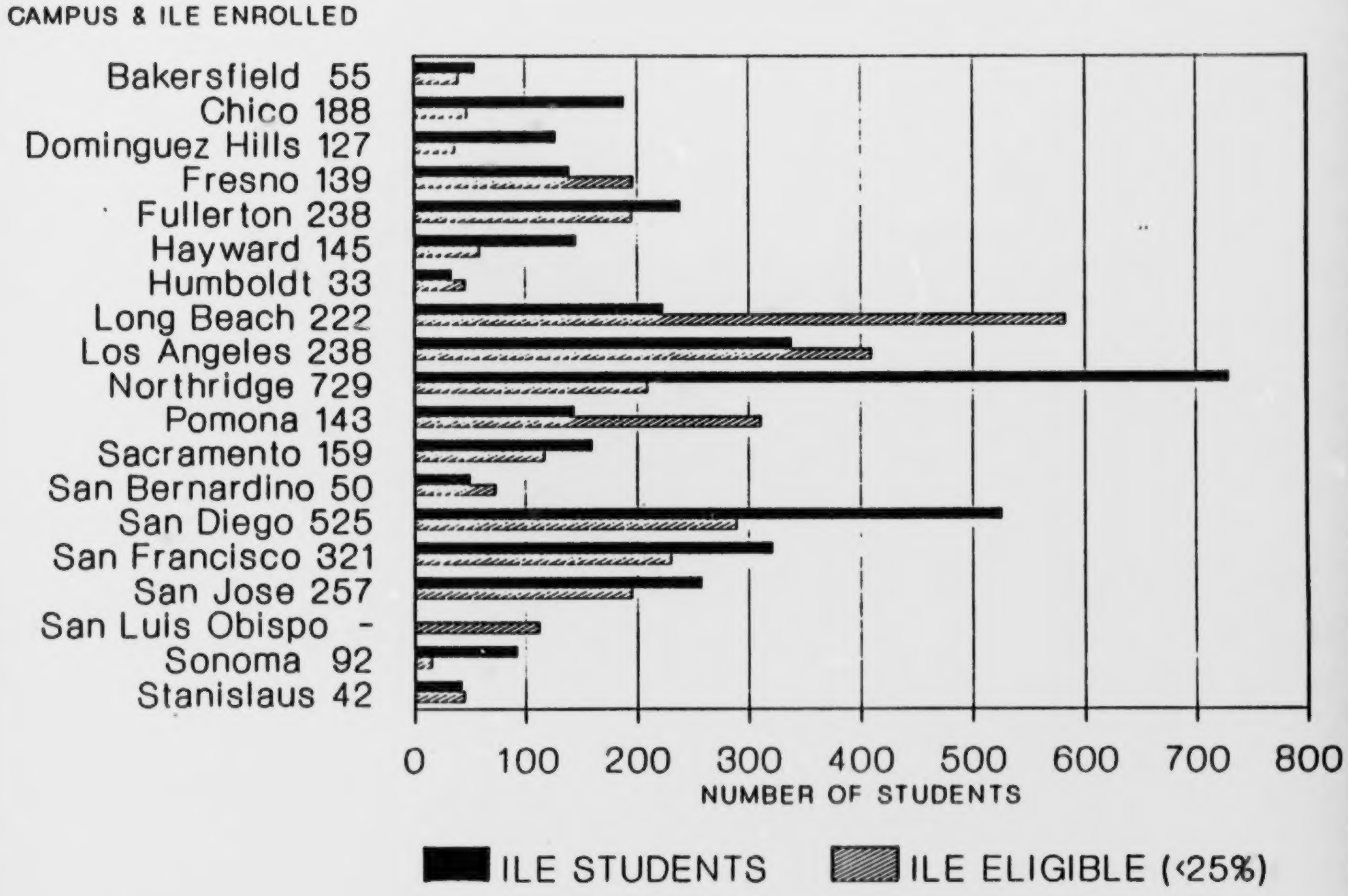
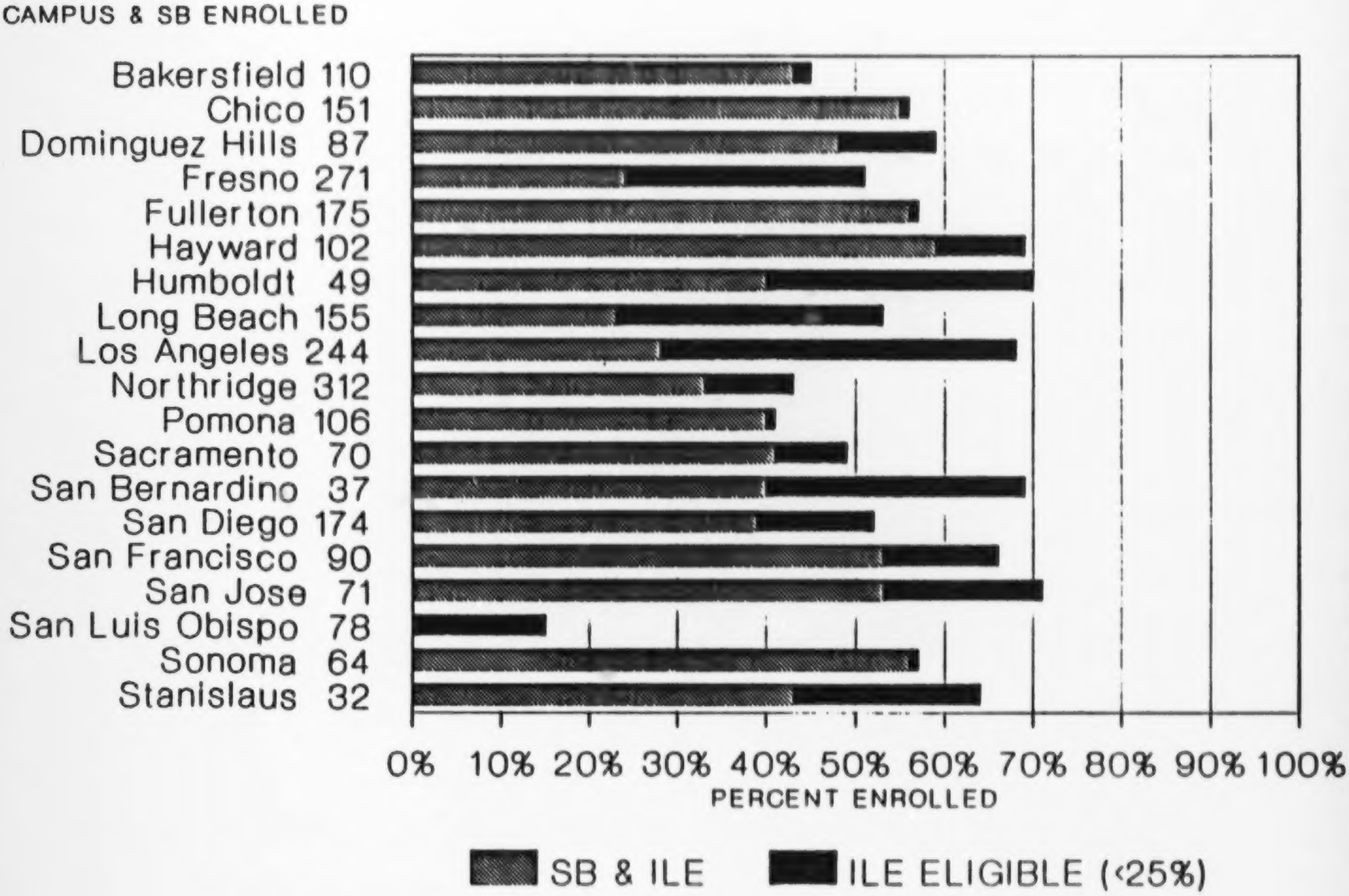


FIGURE 2.4



ILE ELIGIBILITY IN 1986-87 SB

FIGURE 2.5

o Most Summer Bridge programs enrolled a significant number of underprepared students. The combination of SB-ILE and ILE-eligible students account for more than 50% of those enrolled at 14 campuses.

o Summer Bridge-ILE participation ranged from less than 25% to nearly 60% across campuses. Hayward, Fullerton, Sonoma and Chico enrolled the highest proportions of their ILE-eligible students, while Long Beach and Fresno captured the least.

o Some ILE programs failed to enroll large numbers of eligible Summer Bridge Students. Los Angeles and Fresno missed 99 and 74 students, respectively, and Long Beach failed to capture 48.

A caveat must be made regarding the above analyses of ILE compliance. These figures were drawn from system data bases. For roughly 40% of ILE students in the first two cohorts, no ELM or EPT test scores were available. This raises two questions: 1) How were more than 1500 students in each year enrolled in ILE without test scores? 2) What were the ability levels of those students not having scores?

One answer to the first question might be that the TEST data base, from which scores were retrieved, contained incomplete or outdated information on the student sample. The use of Personal Identification Numbers, rather than Social Security Numbers, might also have been a factor. Another explanation is that program directors applied proxy exams, such as SAT scores, to identify students. A third possibility is that ineligible students were admitted to ILE. Site visits and discussions with those concerned suggest that all of these explanations are involved in varying degrees across campuses.

With regard to the second question, we have evidence from at least two campuses that the ELM and EPT scores were available for significant numbers of their students but, for some reason, failed to be posted in the TEST data base. In these cases, and probably others, the additional scores would not significantly alter the distribution of ability levels represented.

CHAPTER THREE

PROGRAM DESCRIPTIONS

In this chapter, we begin by discussing the contexts of ILE and Summer Bridge programs. Then we describe and analyze the program variations for both ILE and Summer Bridge. The focus of discussion is on the general themes that emerged from cross-site comparisons. For a more detailed description of each program, please refer to two other reports resulting from the evaluation study: California State University Intensive Learning Experience Program Profiles and California State University Summer Bridge Program Profiles. For an in-depth descriptions of six exemplary programs, please refer to Promising Practices for Minority Retention and Achievement: Case Studies of Summer Bridge and Intensive Learning Experience Programs.

Program Contexts

To provide the background information for both ILE and Summer Bridge programs, Table 3.1 displays the enrollment figures for each campus and its ILE and Summer Bridge programs. Table 3.1 also shows the percentage of minority (ethnic groups other than White) enrollment within each category. Enrollment information is for the 1985-6 school year. The following program descriptions and themes for both ILE and Summer Bridge, however, were based on data collected during the site visits the evaluation team conducted in 1986-87 and case study site visits conducted in 1987-88. Program proposals, reports, and updates from each campus were also analyzed for this purpose.

The percentages of overall campus minority enrollment range from 9.2% at Humboldt to 54.6% at Los Angeles. For ILE programs, the percentages of minority enrollment range from 43.6% at Sacramento to 92.9% at Dominguez Hills. These rates are considerably higher than those for overall campus enrollment. The Summer Bridge minority enrollment figures are even more impressive; the percentages range from 58.5% at Sonoma to 99.3% at Long Beach. Clearly both ILE and Summer Bridge programs are reaching out to serve minorities.

Intensive Learning Experience

Table 3.2 displays the organization and components of ILE programs on all 18 campuses. In general, each program has at least a director, an English component, and a math component. On a number of campuses, there are additional components such as ESL, advising, or counseling. Table 3.2 also shows the rank of the personnel directing the program or coordinating the program components. Table 3.3 gives further details on course offerings and types of instructors within each program. Considerable program and personnel variation is evident from these two tables, showing that ILE programs are by no means cookie-cutter programs. In the following, we discuss a number of themes that emerged from the cross-site analysis.

Table 3.1

1985-6 Summer Bridge and ILE: Percent Minority Enrollment by Campus and Program

CAMPUS	Campus Enrollment	Campus Percent Minority	ILE Enrollment	ILE Percent Minority[a]	SB Enrollment	SB Percent Minority[a]
Bakersfield	3,776	24.4	81	82.3	111	74.5
Chico	14,667	10.6	201	44.0	134	83.6
Dominguez Hills	7,649	60.1	139	92.1	115	91.3
Fresno	16,918	25.8	213	72.4	239	95.0
Fullerton	23,445	26.3	347	74.0	159	85.6
Hayward	12,173	38.4	214	73.0	108	90.3
Humboldt	6,220	10.0	36	48.6	31	86.6
Long Beach	32,519	34.2	—	—	172	96.3
Los Angeles	20,525	67.2	615	86.9	412	82.7
Northridge	28,871	26.3	657	69.6	234	96.1
Pomona	17,207	35.1	323	83.7	111	98.1
Sacramento	23,313	23.1	210	49.0	57	94.5
San Bernardino	6,513	25.1	82	56.2	26	92.4
San Diego	34,014	20.3	638	66.6	177	92.2
San Francisco	25,143	40.4	423	76.8	88	83.3
San Jose	25,479	34.4	459	71.6	85	96.1
San Luis Obispo	16,140	15.4	—	—	90	85.6
Sonoma	5,491	11.8	102	46.5	82	54.5
Stanislaus	4,255	19.5	82	47.4	42	90.3
TOTAL	324,626	29.8	4,822	70.9	2,473	88.3

[a] Source is matched FWL sample

Table 3.2

ILE Organization

Campus	Director	English		ESL		Math		Other
		Coordinator	Depts	Coordinator	Depts	Coordinator	Depts	
Bakersfield	Asst VP, Dean of Undergrad Studies, Chair of ILE Council	ILE instructor in English and Reading	Eng Dept; School of Ed	Same as ILE English Coordinator	English Dept	ILE math instructor	Math Dept	ILE FACULTY ADVISOR: Assistant Professor
Chico	Asst to the Provost, Coord EPT/ELM and Grad Write Test	Assistant Professor of English	English Dept	N/A	N/A	Part-time Math lecturer	Math Dept; Community College	ILE ADVISOR: Affiliated with Office of Advising and Orientation
Dominguez Hills	Assoc Dean of Acad Affairs, Prof of Chemistry	Full Professor of English	English Dept	Same as ILE English Coordinator	English Dept	Chair of Math Department	Math Dept	N/A
Fresno	Staff member of Learning Assist Center	Associate Professor of English	English Dept	N/A	N/A	Part-time Math lecturer	Math Dept	N/A
Fullerton	Director of Learning Assist Center, Summer Bridge Director	Full-time English faculty member	English Dept	Same as ILE English Coordinator	English Dept	Math Dept faculty member and Community College faculty member	Community College	COORDINATOR OF STUDENT DEVELOPMENT: LAC staff member, Coordinator of Summer Bridge
Hayward	Assoc VP for Academic Programs	Full-time English lecturer	English Dept	Same as ILE English Coordinator	English Dept	Part-time Math lecturer	Math Dept	N/A
Humboldt	Student Education Services staff member	None	English Dept	N/A	N/A	None	Math Dept	N/A
Long Beach	Eng lecturer, Composition Coordinator	None	Depts of English, Black Studies, Mex Am Studies	N/A	N/A	None	Community College	ILE ADVISOR: CSULB graduate student ILE MONITOR: CSULB senior in English
Los Angeles	Dean of Undergrad Studies	Full professor of English, ILE Program Monitor	English Dept	Same as ILE English Coordinator	English Dept	Full professor of Math	Math Dept	N/A

(table continues)

Campus	Director	English		ESL		Math		Other
		Corodinator	Depts	Coordinator	Depts	Coordinator	Depts	
Northridge	Assoc VP for Academic Programs	Full Prof of English and Pan African Studies	Depts of English, Pan Af Studies, Chicano Studies	N/A	N/A	Assistant Professor of Math	Math Dept	COORDINATORS IN EACH OF THREE DEPTS OFFERING ENGLISH COURSES: Departmental faculty
Pomona	Dean of Instruction, History Professor	Assoc Prof of English, Coord of Basic Communication Skills	English Dept	Full Professor of English	English Dept	Full-time Math lecturer	Math Dept	N/A
Sacramento	Director of Learning Skills Center	Tenured LSC Eng Coord (LS15); Eng Dept Remedial Eng Coord (Eng 1)	LSC; English Dept	Tenured LSC ESL Coordinator	LSC; English Dept	Tenured LSC Math Coordinator	LSC	N/A
San Bernardino	English lecturer	None	English Dept	N/A	N/A	None	Math Dept	ILE EVALUATOR: Associate Dean of Undergraduate Studies
San Diego	Full Prof in Acad Skills Center, Full Prof of Lings	None	ASC	N/A	N/A	Full-time lecturer	ASC	ILE EVALUATOR: Faculty member of ASC ILE MONITOR: Faculty member of ASC
San Francisco	Former lecturer in Ethnic Studies; Summer Bridge Director	Full Professor of English, Composition Coordinator	English Dept	Part-time ESL lecturer	English Dept	Asst to Dir of Eth Stds (ES 50); Chair of Math Dept (Math 60)	Ethnic Studies; Math Dept	ILE MONITOR: SFSU senior, Summer Bridge monitor
San Jose	Counseling Center Psychologist	English instructor	English Dept	ESL Program Director	English Dept	Math instructor	Math Dept	N/A
Sonoma	Part-time lecturer in Learning Center	None	LC (Un.98A & 98B); Eng Dept (Eng99)	N/A	N/A	None	LC (Un.98C); Math Dept (Math 99)	N/A
Stanislaus	ILE Math instructor, visiting Math lecturer	Director of Writing Center	Writing Center	N/A	N/A	Same as ILE Director	Math Dept	ILE MATH ADVISOR: Full professor of Math

Table 3.3

1986-7 ILE Course Information

Campus	Component	Course Name/Number	Course Description	Level	Students Served	Instructor
Bakers-field	English	English 51 ED-RD 52.001 English 53	Reading comprehension/vocabulary Critical thinking and writing Basic writing	1st qtr 2nd qtr 3rd qtr	<25% EPT	Part-time
	ESL	English 191 English 192 English 193	Grammar, writing Vocabulary, grammar, writing Reading, vocabulary, writing	1st qtr 2nd qtr 3rd qtr	<25% EPT; LEP	Regular and part-time
	Math	Math 54.001 Math 54.015 Math 54.002	Arithmetic, elementary algebra Elementary algebra, geometry Intermediate algebra	1st qtr 2nd qtr 3rd qtr	<25% ELM	Part-time
Chico	English	English 16 English 17	Developmental writing/reading Basic writing workshop	1st sem 2nd sem	<25% EPT EPT <151	Part-time
	Math	Math 1 Math 2	Algebra, geometry Algebra, geometry	1st sem 2nd sem	<25% ELM	Part-time CSUC Butte College
Dominguez Hills	English	English 088 English 099	Developmental reading Basic writing workshop	1st sem 2nd sem	<25% EPT	Part-time
	ESL	English 088 English 099	Developmental reading/ESL section Basic writing/ESL section	1st sem 2nd sem	<25% EPT; LEP	Part-time
	Math	Math 001 Math 005	Arithmetic, algebra, geometry Algebra, geometry	1st sem 2nd sem	<25% ELM	Part-time
Fresno	English	English A	Fundamental writing skills	1st & 2nd sem	EPT <151	Part-time; graduate students
	Math	Math ILR	Arithmetic, pre-algebra, algebra, geometry	1st &	<25% ELM	Part-time
Fullerton	English	English 099	Developmental writing	1st & 2nd sem	EPT <151	Part-time
	ESL	English 099	Developmental writing/ ESL section	1st & 2nd sem	EPT <151; LEP	Part-time
	Math	Math 089A Math 089B	Arithmetic, elementary algebra Algebra, geometry	1st sem 2nd sem	<25% ELM	Fullerton Community College faculty
Hayward	English	English 891 English 892 English 893	Grammar, writing Grammar, writing Writing	1st qtr 2nd qtr 3rd qtr	<25% EPT	Part-time
	ESL	English 892	Grammar, writing	2nd qtr	<25% EPT; LEP	Part-time
	Math	Math 891 Math 892 Math 893	Arithmetic, elementary algebra Algebra Algebra, geometry	1st qtr 2nd qtr 3rd qtr	<25% ELM	Part-time
Humboldt	English	English 40 English 50	Writing Writing	1st sem 2nd sem	<25% EPT	Part-time
	Math	Math 40 Math 44	Arithmetic, elementary algebra Algebra, pre-calculus	1st sem 2nd sem	<25% ELM	Graduate students
Long Beach	English	ILE 010 English 001 or Blk Stds 070 or Mex Am Stds 040	Reading/writing Writing skills Language skills Bilingual communication skills	1st sem 2nd sem	<25% EPT	Part-time
	Math	MACC 160 MACC 113	Arithmetic Basic algebra, geometry	1st sem 2nd sem	<25% ELM	Long Beach City College faculty

(table continues)

Legend: LEP = Limited English proficient; <25% = Bottom quartile; ESL = English as a Second Language; Ss = Students

Campus	Component	Course Name/Number	Course Description	Level	Students Served	Instructor
Los Angeles	English	English 110	Basic writing	1st qtr	EPT 131-136	Part-time
		English 120	Intermediate writing	2nd qtr	EPT 139-146	
		Retake workshop	Tutoring in English 110 or 120	Followg 110/120	Ss who fail Eng 110 or 120	
	ESL	Retake workshop	Tutoring in English 110 or 120/ESL section	Followg 110/120	Ss who fail Eng 110 or 120	Part-time
	Math	Math 090	Arithmetic, algebra, geometry	1st & 2nd qtr	<25% ELM	Part-time
		Math 101	Algebra, geometry	3rd qtr		
Northridge	English	English 097 or Pan Af 097 or Chic Stds 097	Developmental reading	1st sem	<25% EPT	Regular and part-time
		English 098 or Pan Af 098 or Chic Stds 098	Basic writing	2nd sem		
	Math	Math 094A	Arithmetic, geometry	1st sem	<25% ELM	Regular and part-time
		Math 094B	Elementary algebra	2nd sem		
Pomona	English	English 095	Reading	1st qtr	<25% EPT	Regular and part-time
		English 096	Paragraph writing	2nd qtr		
		English 097	Writing	3rd qtr		
	ESL	English 098	Reading	1st qtr	EPT <130; LEP	Regular ESL faculty
		English 099	Writing	2nd qtr		
		English 102	Writing	3rd qtr	EPT 130-149; LEP	
	Math	Math 010	Arithmetic, geometry	1st qtr	ELM Arith<9 or ELM Geom <7	Part-time
		Math 011	Beginning algebra	2nd qtr	ELM Arith≥9 and Geom ≥7	
		Math 050	Intermediate algebra	3rd qtr	<25% ELM	
Sacramento	English	LS 15	Writing, reading	1st sem	EPT 130-141	Part-time
		English 1	Writing, reading	2nd sem	EPT 142-150	
	ESL	LS 16	Writing, reading, grammar	1st sem	EPT 130-141	Part-time
		English 2A	Writing, reading, grammar	2nd sem	EPT 142-150	
	Math	LS 7A	Arithmetic, algebra, geometry	1st sem	ELM Arithmetic & geometry <17	Part-time
		LS 7B	Algebra	2nd sem	ELM Arithmetic & geometry ≥17	
San Bernardino	English	English 99A	Writing, reading	1st qtr	<25% EPT	Part-time
		English 99B	Writing, reading	2nd qtr		
		English 99C	Writing, reading	3rd qtr		
	Math	Math 85A	Fundamental arithmetic	1st qtr	<25% ELM	Part-time
		Math 85B	Algebra	2nd qtr		
		Math 85C	Geometry	3rd qtr		
San Diego	English	AS 110 and	Writing development	1st sem	<25% EPT	Academic Skills faculty
		AS 111 and	Reading development			
		AS 141D and	Learning skills			
		G.E. class and	One of several		Any student	SDSU faculty
		AS 296	G.E. study group		<25% EPT	SDSU graduate students
		AS 150 and	Writing development	2nd sem	<25% EPT	Academic Skills faculty
		AS 141A	Reading development			
	Math	AS 102A and	Fundamentals of math	1st sem	<25% ELM	Academic Skills faculty
		AS 141H	Skills application			
		AS 102B and	Algebra review	2nd sem		
		AS 141H	Research tools			

(table continues)

Legend: LEP = Limited English proficient; <25% = Bottom quartile; ESL = English as a Seond Language; Ss = Students

Campus	Component	Course Name/Number	Course Description	Level	Students Served	Instructor
San Francisco	English	English 49	Writing	1st sem	<25% EPT; sections for hearing impaired	Graduate students in English
		English 50	Writing	2nd sem		
	ESL	English 204/205	Writing/reading	1st & 2nd sem	<25% EPT; LEP	Graduate students in ESL
	Math	Ethnic Studies 50	Pre-algebra	1st sem	<25% ELM; sections for visually impaired & LD	Part-time
		Math 60	Elem algebra	2nd sem		
San Jose	English	English 3A	Writing	1st sem	<25% EPT	Regular and part-time
		English 3B	Writing, reading	2nd sem		
	ESL	English 3F	Writing, grammar	1st & 2nd sem	<25% EPT; LEP	Regular and part-time
	Math	Math 3A	Arithmetic, basic algebra	1st sem	<25% ELM	Part-time
		Math 3B	Algebra, geometry	2nd sem		
Sonoma	English	Univ 98A and Univ 98B	Writing skills Reading skills	1st sem	<25% EPT	Part-time
		English 99	Basic composition	2nd sem		
	Math	Univ 98C	Arithmetic	1st sem	<25% ELM	Part-time
		Math 99	Pre-college math	2nd sem		
Stanislaus	English	ILE English-I28-0100	Reading, writing	1st sem	<25% EPT	Part-time
		ILE English-II28-0101	Writing	2nd sem		
	Math	Math Workshop 61-0100	Pre-algebra	1st & 2nd sem	<25% ELM	Full professor and part-time

Legend: LEP = Limited English proficient; <25% = Bottom quartile; ESL = English as a Second Language;
Ss = Students

ILE Program Design was Influenced by Existing Developmental Courses on Campus.

Prior to the funding of ILE programs in 1985, a number of CSU campuses had in place well-developed remedial or developmental courses in either English or math or both. However, because the English Placement Test (EPT) has been administered since 1977, the English developmental programs are, in general, better established than the math programs. Adoption of the ELM examination, on the other hand, was relatively recent (1983-84) and included no provision for placement, math developmental programs are still in the experimental stage on many campuses. The histories of these programs on each campus affected the design and implementation of the ILE program. For instance, ILE English programs seemed to be more established and smoother in operation than ILE math.

With the inception of ILE funding, a number of campuses quickly modified their existing developmental courses into ILE courses. Several extended an existing one-semester course into a two-semester sequence and reduced class size to 12 as required by ILE funding guidelines. On campuses with a large proportion of underprepared students, special ILE sections with a smaller class size (N=12) were created out of the established developmental courses. However, the ILE sections were often oversubscribed. Thus, a number of campuses with a larger class size adopted the practice of using tutors within or outside of the classroom to provide additional individual attention to ILE students. Some campuses combined protected enrollment for ILE sections in the first semester with mixed ILE and non-ILE sections in the second semester. To justify this practice, ILE students were given additional tutorial help and/or academic advising.

On campuses where there were no established developmental courses, new ILE courses were created according to the ILE funding guidelines. Some of these campuses (e.g., Chico) found it more practical to offer ILE classes in conjunction with a local community college; some (e.g., Fullerton) relied on the community college completely to offer ILE math; a couple of campuses (Long Beach and San Luis Obispo) simply could not provide an ILE program according to the prescribed rules and gave up on ILE funds altogether in the first year of funding. To date, there is still one campus, San Luis Obispo, that does not have ILE; Long Beach now offers ILE English from the English Department, but instructors for ILE math are from Long Beach City College.

ILE Programs were by No Means Static.

On most campuses, the late announcement of ILE funding for 1985-86 meant programs were quickly and sometimes haphazardly put in place. In the second and third year, many programs went through personnel, organizational, and curricular changes based on internal assessment of staff and student satisfaction as well as the formative feedback from the external evaluation.

A number of campuses such as Dominguez Hills, Fresno, San Francisco, Sonoma, and Stanislaus went through changes of ILE leadership.

Such leadership changes were often symptomatic of internal problems in ILE implementation. Besides leadership and other staff changes, some programs, such as San Jose, adopted a new curriculum in midstream. Staff on several campuses expressed regret that just as they were getting the program in good operational order, the 3-year funding for ILE was already coming to an end.

There were Five Organizational Patterns for ILE.

ILE programs varied in the way they were organized. While it was a requirement of the Chancellor's Office that each ILE program have a director, the position of the director and his or her responsibilities varied across campuses. Using the role of the director and the director's relationship with various program components as a guide, we can roughly divide all 18 ILE programs into five organizational patterns. From the most highly centralized to the least, these patterns are: Centralized, coordinated, skewed, autonomous, and decentralized.

Centralized Pattern. The program has a strong centralized leadership. The ILE director is involved in every aspect of the program design and implementation and makes all personnel decisions. This pattern is characteristic of small programs and campuses. The director is not usually a member of the English or math department and is sometimes assisted by campuswide committees in program design, implementation, and monitoring. The program is usually so small that no separate English and math coordinators are needed. Campuses that fit into this pattern are Bakersfield, Humboldt, San Bernardino, and Sonoma.

Coordinated Pattern. Coordinators of the program components have considerable control over the curriculum and the hiring and training of the instructors. The director has a role in program development and evaluation and serves mainly as a coordinator of the various components. This pattern is characteristic of medium-sized programs such as those in Chico, Pomona, and Sacramento.

Skewed Pattern. In this pattern, the ILE director has more knowledge and control over one component than the other by virtue of being a member of the instructional faculty of the one component. For example, at San Diego, the ILE director is very much involved in the design and teaching of reading and writing support courses which form the dominant component of the ILE, while the math component is much newer and smaller and is headed by a math coordinator. At Long Beach, the director is a member of the English department; at Stanislaus, the director is a math instructor.

Autonomous Pattern. ILE is composed of loosely coordinated, autonomous components. Each component is fairly independent in its program design and operation. The ILE director or the Director's Office, operating much like a component of the program, is responsible for advising and counseling of students and other support services for ILE students. This pattern seems to be characteristic of large urban campuses such as San Jose and Fullerton.

Decentralized Pattern. The role of the director is largely titular. The director, in general, occupies a high-status position on campus and is powerful and prestigious enough to head up the often mutually non-communicative departments of English and math. The director is responsible for submitting the proposal and reports to the Chancellor's Office, but that often entails attaching a cover letter from the Director's office onto the segments submitted by the English and math coordinators. The director has little knowledge of the day-to-day operation of the program. This pattern is characteristic of Hayward, Dominguez Hills, Los Angeles, and Northridge. San Francisco and Fresno are also decentralized in operation, but differ from the above campuses in that the directors do not occupy high offices.

Table 3.4 displays the five organizational patterns and the campuses that fall into each category.

Some ILE Programs were Outside the English and Math Departments.

One of the principles governing the ILE program was that academic departments and departmental faculty members should be involved in this innovative program for underprepared students. It is logical, therefore, that most campuses offer ILE courses from the English and math departments. However, campuses such as San Diego, Sacramento, and Sonoma housed the ILE program within the Academic Skills Center or Learning Skills Center. On large urban campuses such as Northridge and San Francisco, the English or math courses were offered by more than one academic department. For instance, ILE English in Northridge was offered by three departments--English, Pan-African Studies, and Mexican-American Studies; at San Francisco, ILE math was provided by the math department and the School of Ethnic Studies.

Smaller Campuses Enjoyed More Campuswide Involvement.

In the planning and implementation of ILE programs, genuine campuswide involvement was rare. However, on smaller campuses such as Sonoma and Bakersfield, campuswide committees were set up from the very beginning to plan, design, and oversee the implementation of the program. Pomona, while by no means a small campus, was exceptional in involving all the professional schools in its advising component.

On most other campuses, only the English and math departments, or rather the developmental components of those departments, were involved. San Diego, being the largest campus, found a creative solution for achieving more campuswide involvement. Even though the program is basically operated out of the Academic Skills Center and the EOP office, ILE English classes (reading and writing development) were offered in "packages." Each package had in its center a GE course from one of several academic disciplines and, thus, the program enjoyed the involvement of faculty from many fields.

Table 3.4

ILE Organizational Patterns

Centralized	Coordinated	Skewed	Autonomous	Decentralized
Bakersfield	Chico	Long Beach	Fullerton	Dominguez Hills
Humboldt	Pomona	San Diego	San Jose	Fresno
San Bernardino	Sacramento	Stanislaus		Hayward
Sonoma				Los Angeles
				Northridge
				San Francisco

Strong Policy Support from the Highest Level Reduced Problems with ILE Implementation.

The ILE funding policy states that for first-time freshmen scoring in the bottom quartile on the ELM/EPT, campuses must offer one course in math and one course in English for the entire academic year. Many campuses complained that they could not comply with the rule in a timely fashion. Because of students' late test-taking and the late availability of test results, eligible students could not be identified, contacted, and placed into the ILE classes until the second or third (for quarter campuses) term.

On campuses such as Bakersfield, Northridge, and Sonoma, where there was high-level involvement and commitment to the ILE program, policies were set up so that students were placed appropriately in the first term. For example, these campuses required that students take ELM and EPT before the first term, and that ILE-eligible students are flagged by Admission and Records and must go through special registration steps to assure proper placement. Los Angeles was the campus least successful in identifying and placing ILE students in the first term. The reasons given were many. Los Angeles is an all-year-round campus; therefore, students can enter the University during any quarter. The inefficiency of the Admission and Records office, no priority registration for freshmen, and no GE advisors were also factors. Long Beach had similar difficulties in that priority registration was given to the upper division students, many of whom had yet to complete EPT and ELM requirements. These students ended up in the ILE classes instead of first-time freshmen for whom the program was intended to serve. First-time freshmen did not have priority registration nor advisement. A further indication of the effect this policy had on ILE enrollment was that only one freshman was among the eight students randomly selected from two math and English classes for interviewing.

The degree to which the ILE class size of 12 is maintained on each campus also has much to do with top-level campus support for the ILE program. Some campuses ignored the small class size rule completely, pleading that a limited campus budget and lack of classrooms and faculty made it impossible. San Francisco, for example, was one campus where compliance on class size had been a problem in ILE English; the Provost was aware of the problem and has allocated positions in the School of Humanities designated specifically for ILE classes so that the student-faculty ratio could be brought down to 12:1.

Math Components were Often Underenrolled.

The math component was more often underenrolled than English. There appeared to be several reasons for this. Because students were allowed unlimited tries to pass the ELM examination, many students opted to take the test again and again instead of enrolling in ILE math classes which generated no academic credits. On a number of campuses, there were ELM preparation workshops offered in the evenings or weekends; many ILE-eligibles considered that to be a less painful way to prepare for ELM than taking the one-year ILE classes. Several ILE math students we interviewed indicated to us another possible reason for lack of interest in the course--they thought they needed only instruction in geometry, which they had missed in high school, and did not like having to go through remediation in basic arithmetic or algebra first as often required in the ILE math sequence.

Other reasons for underenrollment were the relatively late development of remedial math programs (see the first theme) and lack of interest, in general, for developmental math among math faculty. Both reasons may well explain the lack of well-established ways to track and guide ILE-eligible students into the courses. At Los Angeles, a rather unique reason for math underenrollment was given: EOP advisors told their students to register for EOP study skills courses first.

Nevertheless, a number of campuses worked creatively to find ways to solve these problems. For example, the Math Department in Pomona instituted new policies that ensured proper enrollment of ILE math-eligible students. In addition, ILE math students with a course grade of C or better were exempted from proficiency exams and allowed to progress to the next level; and, thus, more students were motivated to stay with the three-quarter sequence of ILE courses.

ESL Courses were Rarely a Part of ILE.

When the ILE program was designed, it was assumed that many of those who were eligible would be students for whom English is a second language. The large proportion of Asian students scoring in the bottom quartile on the EPT (over half those taking the exam) is evidence that this is the case. In general, however, ILE programs did not make special provisions for this population.

Bakersfield, Pomona, Sacramento, San Francisco, and San Jose had special ILE ESL courses (see Table 3.3). A number of other campuses such as Northridge and Hayward only offered special sections of ILE English reserved for ESL students. Los Angeles offered ILE "retake workshops" to provide additional individualized ESL instruction for ESL students who were failing their ILE English courses.

Other campuses did not have programs set up to address the special linguistic and cultural needs of ESL students; however, the staff we interviewed on these campuses all recognized the need to do so. In addition, several ILE directors had deliberately recruited staff with ESL specialization or experiences to teach ILE English.

Students Appreciated ILE Classes.

Most students acknowledged that ILE classes were helpful and were what they needed before college-level English and math. Student comments on each program were included in the report, California State University Intensive Learning Experience Program Profiles. Some of the most enthusiastic testimonials came from underrepresented minority students. For example, a San Diego ILE student said:

> I think ILE is a super program. My brother is going to Cal Poly, San Luis Obispo as a Freshman, but he hadn't had the same opportunity that I had. I think he's having a little problem because he's just come right out of high school, and he's carrying 12 units, a full load of college work. The ILE program enables you to slowly seep into the college atmosphere.

Another San Diego ILE graduate attributed his success to ILE:

> As I look back on high school, I wasn't even supposed to be here. I came in through the EOP program; I didn't have the requirements to get in through the normal admissions. I think I pretty much made a pretty big impact here at San Diego State, based on the fact that I wasn't supposed to be here.

Given the variations in ILE program implementation, it was no surprise that not all student responses were so positive. Some were definitely negative about the year-long sequence (thus, adding another year of expenses and time toward graduation) and the usually non-credit-bearing nature of ILE. Complaints about the low-level and high-school-like curricular content and instruction were also common. However, some of these initially dissatisfied students later became strong advocates of ILE classes once they found how useful skills-building lessons were in their college life.

Effectiveness of Teaching Varied Widely.

The quality of instruction in ILE courses varied tremendously, not only from campus to campus, but also within campuses. In general, the quality of math instruction appeared to be more uniform than that of English instruction. Los Angeles and Dominquez Hills both recruited the best high school math teachers from the area to teach ILE math. A number of other campuses employed part-time lecturers or graduate students to teach developmental and ILE math. Even though these instructors were not regular math faculty members, they specialized in teaching developmental math and knew how to deal with their students' math anxiety and past failures. Based on our observations and student interview data, these teachers, though having few credentials, and part-time and temporary in status, were effective instructors nevertheless. Several ILE directors and math department chairs interviewed frankly admitted that ILE math students fared better with these part-timers than with the regular math professors, who knew little and cared not at all about developmental math instruction.

In ILE English, the quality of teaching varied to a great extent. The following excerpts from our fieldnotes illustrate the extremes. The first is an example of high quality instruction; the second, might be characterized as "uninspired."

> Teacher and students are discussing the "Baby M" case--pros and cons of surrogate parenthood. Teacher hands out a fact sheet about the case and, referring to the class text, introduces concepts having to do with writing argumentative essays. Students will be writing a paper, and will have to take a stand for either the Whiteheads (the surrogate parents) or the Sterns. Students brainstorm about issues involved in the Baby M case, while teacher writes their suggestions on the blackboard. Students and teacher engage in an active discussion, the majority of students taking the side of the Sterns, and teacher advocating the position of the surrogate mother. Teacher wraps up the discussion by referring students to their texts for information on writing introductory paragraphs. As the bell rings, several students are still arguing about the case with teacher.

> Teacher gives students a quiz on "tense shifts" consisting of five sentences with verbs in different tenses. Students are to make the tenses consistent. After the quiz, teacher conducts a lesson on past participles used as modifiers. She reads from the textbook, saying that past participles make writing "denser and more vivid." She reads from the text pairs of sentences and shows how they can be combined. Teacher reminds the class that their essays will be marked "abstract" if they don't use vivid modifiers, or "wordy" if they use several sentences which could be combined into one. Teacher continues reading from the text, saying that past participles need to have an -ed ending. She reads sentences from the book, calling on students one by one to correct the adjectives that need an -ed. Throughout the lesson, only one or two students call out the answers; others talk only when called on.

In the first example, the instructor actively engaged students in a discussion that led up to their next writing assignment. She encouraged them to see different points of view, while relating the lesson to the writing curriculum. The second instructor, on the other hand, relied heavily on the text, even reading from it for most of the lesson. Interaction in the lesson was limited, since students' turns to speak came only at the behest of the instructor.

Good teachers know each of their students well, especially in ILE classes which are, by funding regulation, much smaller than regular college classes. Good teachers also care deeply that their students learn and have high expectations of their students. The following is an example of a teacher who had yet to learn her students' names at the end of the term, and who clearly was condescending to her ESL students:

> Teacher tells class that she wishes that all of them would pass their final examination next week; if they don't, they shouldn't be mad at themselves. An Asian student raised her hand and said that "passing is not all; we want to do well." And a little later, she emphatically says, "we're all smart."

The Academic Levels of ILE Courses Varied Greatly.

The above examples of classroom instruction also illustrate the wide range of curricular difficulty observed in ILE English classes. While all the ILE English classes were identified as developmental writing, the types of assignments and the cognitive level of the tasks students had to perform ranged from simple to quite complex. Some lessons observed looked like elementary school grammar instruction comprised of mechanical workbook exercises, while other lessons resembled critical thinking classes combined with expository writing. Some students were being taught how to write at the word and sentence level, while others were learning about developing ideas, constructing a thesis statement, and the organization of an essay.

In ILE math, the range of lessons was even greater. A number of ILE lessons observed were on reading decimals and comparing the value of two or more decimals. Students in these classes needed such lessons; in one class, for example a heated debate arose over which of the following decimal values was greater: .01 or .001. In contrast, there were ILE lessons on polynomials and complicated algebraic word problems.

This theme raises an additional question about the appropriate level of ILE courses. The goal of the ILE program is to prepare students for baccalaureate English and mathematics; realistically, however, there is little chance that students working at the fifth or sixth grade level in math will be able to pass the ELM after one, or even four, years of remediation. Should ILE courses therefore focus only on those students having adequate levels of competence?

Part-time and Low-rank Faculty Members were the Norm.

On most campuses, ILE classes were taught by part-time lecturers or graduate students. While many of these part-timers were competent and dedicated instructors, as pointed out earlier, the policy of employing part-time instructors for ILE courses had significant drawbacks. Part-time lecturers received low pay and no benefits on some campuses; they had little or no assurance of employment from term to term. As a result, many held several positions simultaneously--in ILE, at community colleges, and at local high schools. Many of the best instructors were frustrated with the situation and contemplating a career change.

While most graduate students were satisfied with their ILE assignment, some ILE directors had difficulty maintaining them. At Hayward, for example, graduate students with no prior teaching experience were recruited and trained to teach ILE English. After the first year, however, the department assigned these experienced students to Freshman Composition, and replacements had to be identified for ILE.

If ILE is to succeed in providing high quality developmental instruction to underprepared students, the program will need to find ways to assure continuity of instructors. The alternative will be that, each term, many ILE students will face an instructor who is teaching the course for the first time. A strong staff development program is one way to assure continuity of quality instruction. Commendable examples were rigorous training programs for ILE English instructors at San Francisco and for ILE math instructors at Pomona.

Summer Bridge

Table 3.5 displays the organization and components of Summer Bridge programs on all 19 campuses. In general, each program has at least a director and an academic component coordinator. On several campuses there are additional coordinators for other components such as personal development, residential, orientation, and counseling. Table 3.5 also shows the regular position or rank of the personnel directing the program or coordinating the program components. Table 3.6 gives further details on courses and activities offered within each program and the program duration. Considerable variation is also evident here.

In the following, we discuss a number of themes that emerged from the cross-site analysis. The last three themes presented for ILE were also true of most Summer Bridge programs: "Effectiveness of teaching varied widely;" "the academic levels of courses varied greatly;" and "part-time and low-rank faculty members were the norm." These will not be repeated here.

Most Staff and Students were Very Enthusiastic about the Summer Bridge Experience.

Based on interviews conducted with the staff and students of eight Summer Bridge programs in 1986, and three case study sites and San Luis Obispo in 1987, this theme seemed valid for most campuses.

Instructional, counseling, and tutoring staff were all highly motivated in helping their students. Most of them put into the program a lot more time and energy than the normal call of duty. For instance, some reported that they went to the dorm in the evenings to continue to provide assistance to their students especially the nights before tests.

Student interview data not only confirmed the above report but also indicated that students were highly enthusiastic about all aspects of the Summer Bridge experiences except the nearly universal complaints against the food in the dormitories. The following are a few representative samples of positive student comments on the program in general and the courses:

> I appreciate all the writing practice that we have received. I'll really appreciate it in the fall because the program gives me a good background.

Table 3.5

1986 Summer Bridge Organization

Campus	Director/Coordinator	Academic Component	Orientation/ Advising/Counseling	Other
Bakersfield	Director: SAA Director	Academic Coordinator: Director, Academic Advancement Center		
Chico	Director: EOP Director; Coordinator of Retention for Educational Equity Services Program Coordinator: Advisor, Educational Equity Services			
Dominguez Hills	Director: EOP Director			
Fresno	Director: Associate Dean of Student Affairs, Outreach and Retention Coordinator: EOP Director; Director of Retention Support Services	Assistant Coordinator for Academic Services: Coordinator, Speech Communications	Assistant Coordinator for Learning Assistance and ILE Liaison: Director, Learning Assistance Center	
Fullerton	Director: Director of Learning Assistance Resource Center; ILE Director Coordinator: LARC staff			
Hayward	Director: EOP Director; Director of Learning Center	Academic Coordinator: EOP Retention Counselor		
Humboldt	Director: Associate Director, EOP			
Long Beach	Director: EOP Director	Instruction Coordinator Enrichment Coordinator	Tutoring Coordinator Orientation Coordinator	Residence Coordinator
Los Angeles	Director: Former Special Assistant to the VP for Academic Affairs; Acting Director, Learning Resource Center (beginning fall 1986)	Writing Coordinator: Part-time English Instructor Reading Coordinator: Instructor in Curriculum and Instruction Math Coordinator: Full Professor of Math; ILE Math Coordinator Oral Communication Coordinator	Personal Development Coordinator: EOP Director	Physical Education Coordinator

(table continues)

Campus	Director/Coordinator	Academic Component	Orientation/ Advising/Counseling	Other
Northridge	Director: Acting Director, Educational Equity Program; Acting Director, EOP	Instructional Coordinator: Associate VP for Academic Programs Coordinator, Integrated Core Curriculum: Full Professor of English and Pan African Studies; ILE English Coordinator Math Coordinator: Assistant Professor of Math (ILE Math Coordinator)		
Pomona	Director: EOP Director Project Coordinator: Associate Director, EOP	Coordinator of Academic Instruction: Associate Director, EOP	Coordinator of Orientation/Advising: SAA Director	
Sacramento	Director: Associate Professor; Coordinator, Ethnic Studies Center	Language Skills Coordinator: Coordinator, Learning Skills Center English Math Coordinator: Coordinator, Learning Skills Center Math)		
San Bernardino	Director: EOP Director			
San Diego	Director: Associate EOP Director	Academic Coordinator: EOP Academic Services Coordinator; Adjunct Professor of English	Personal Development Coordinator: EOP Counselor	Residential Program Coordinator: EOP Counselor
San Francisco	Director: EOP Consultant; Former lecturer in Ethnic Studies; ILE Director Assistant Director: Recent SFSU graduate			Program Evaluator: EOP Consultant; SFSU Graduate Student in Social Psychology
San Jose	Director: Associate Director, EOP; Associate Director, Learning Services	Academic Coordinator: EOP Reading Specialist	Orientation and Residential Coordinator: Director of ASPIRE	
San Luis Obispo	Director: Director of Special Services			
Sonoma	Director: Director of Educational Support Programs	Academic Coordinator: Special Services Program Study Skills Specialist	Orientation Coordinator: EOP, SAA Advisor	Residential Coordinator
Stanislaus	Director: EOP Director		Academic Counselor	

Table 3.6

1986 Summer Bridge Courses and Activities

Campus	Duration	Basic Skills Courses	Academic Courses†	Orientation	Tutoring Counseling/Advising	Other Activities
Bakersfield	4 weeks	Writing Reading Math Study Skills/College Survival Skills*		Parent Orientation Orientation to College* (course) Pre-orientation to ILE for potentially eligible students	Group study and group interaction and awareness sessions with RAs and peer tutors In-class tutoring Individual counseling	Games Physical recreation Films Summer Bridge Olympics Trip to Visual and Performing Arts Festival Awards banquet
Chico	5 weeks	Writing Math Small Group Communications* Adjunct to Small Grp Communs (Reading, Study Skills)		Lectures by staff of various campus offices	Career exploration/values clarification workshops Tutoring by Student Learning Center	Social and cultural activities
Dominguez Hills	6 weeks	English (writing and reading) Math Speech Communication Writing adjunct to Psychology class*	Psychology*	Orientation workshops	Tutoring, workshops, computer-assisted instruction by LAC Individual counseling/advising In-class tutoring	Social and cultural activities, e.g. pool parties, field trips, barbecues
Fresno	4 weeks	Writing Reading Math Study Skills Speech*	Enrichment electives (e.g. biology, computer science, chemistry) Culture (course)	University orientation Campus tours	Peer tutoring Career workshops by minority professionals Small groups led by peer advisor and counselor	Field trips Recreational activities, e.g. picnic, movies
Fullerton	4 weeks	Writing Reading Math ESL Strategies for learning (adjunct to subject matter course) Basic skills	Biology, history, or political science	Parent orientation Orientation by Student Services Activities and workshops	Activities and workshops in communication skills, career development	Health and fitness activities Trips to cultural and sporting events Social activities
Hayward	4 weeks	English (writing and reading) Math		Orientation (course; includes study skills)	Counseling and tutoring by RAs Individual counseling/advising with counselor or academic advisor Tutoring in LC	Cultural and social activities, e.g. field trips, multicultural films, play
Humboldt	5 weeks	English Math College Seminar* (study skills, college survival skills)	Introductory Anthropology*		Study groups with RAs Individual advising by SB advisor and faculty advisor	Special presentations and seminars by HSU faculty and community leaders Sessions with Education Equity faculty and staff
Long Beach	4 weeks	Writing Math Learning Skills		Included in Learning Skills course Summer Orientation and Registration (SOAR) workshops	Tutoring Counseling by RAs Small group exercises on interpersonal communication	Films Multicultural day College Bowl Talent show Awards ceremony
Los Angeles	3 weeks	Writing Reading Math Oral communications Personal development* (includes study skills) ESL-based reading/communication/writing preview		College Survival Skills Seminar Financial Aid Workshop Pre-EOP orientation	Counseling and tutoring provided by RAs	Physical education Social activities Dance performance Trips to museum, art gallery

LEGEND: *Course with G.E. credit
†Subject area instruction, such as Psychology, Anthropology, Literature, Political Science, Culture

(table continues)

Campus	Duration	Basic Skills Courses	Academic Courses	Orientation	Tutoring Counseling/Advising	Other Activities
Northridge	6 weeks	English (writing, reading, study skills; coordinated with culture class) Math	Culture class* (Chicano or Pan African Studies) Chemistry	Lectures	Life goals Individual counseling Math anxiety work-	Student enrichment (networking)
Pomona	6 weeks	English (writing, reading) Math Problem solving/critical thinking	Learning Skills* (includes subject area lecture, e.g. history, biology)	Parent orientation Orientation (course)	Individual and group tutoring Peer advisors Campus mentor Workshops on college success/self-development	Recreational and cultural enrichment activities Meetings with representatives from academic departments and student organization
Sacramento	4 weeks	Language Arts/Writing Study skills Math (all three coordinated with subject lectures)	Subject area lectures by faculty in Arts and Sciences, Humanties, Applied Science	Lectures and workshops (first week)	Counseling and tutoring provided by RAs	Field trips (coordinated with subject lectures) Social activities
San Bernardino	6 weeks	Writing Reading Math Communication Study Skills	Faculty lecture series Ethnic Heritage seminars	Career Planning/Placement Center Orientation	Life Planning (course) Individual advising and counseling	
San Diego	4 weeks	Language experience workshops (writing) Reading Math Learning skills	Literature*	Workshops and special presentations	Group sessions on goal formation and values clarification Individual counseling Tutoring	Recreational activities Cultural activities, e.g. trip to Tijuana Cultural Center, trips to museums, harbor cruise
San Francisco	6 weeks	English (writing, reading Math	Pre-Critical Thinking (Third World Thought) (course)	Orientation by EOP Advising and Developmental staff Workshops on financial aid Orientation for ILE students	College Success Skills (course) Workshops on majors, careers EOP tutoring and advising	Cultural, social, educational, and recreational activities
San Jose	6 weeks	Writing Reading Math Study Skills Tutorial Communications*		Orientation and Advising Seminar	Tutoring and counseling by RAs Group counseling with Counselor	Cultural enrichment (coordinated with writing course), e.g. films, poetry Social activities College Bowl
San Luis Obispo	5 1/2 weeks	Writing Math Computer Literacy Study Skills		Parent Orientation Week of Welcome (University orientation)	Student Development and Leadership Development (course) Seminars in personal development and career clarification	Field trips to public agencies, industries Recreational activities
Sonoma	6 weeks	Writing Reading Math Study Skills Oral Communications Workshop	G.E. course*, e.g. Anthropology, Geography, History, Mexican American Studies	Parent Orientation College Success Skills (course)	Counseling and advising by Counselor and students Tutoring in English/Math Drop-in Lab	Social programs Recreational activities
Stanislaus	4 weeks	Writing Math Study Skills	Lectures by G.E. faculty, e.g. Economics, Ethnic Studies, Political Science, Anthropology	Seminars on campus services	2 1/2 day retreat for personal development Counseling and Career Development workshops Tutoring and individual counseling by RAs	Recreational field trip Field trips to business and industry Social activities, e.g. ice cream eating contest,

LEGEND: *Course with G.E. credit
¶Subject area instruction, such as Psychology, Anthropology, Literature, Political Science, Culture

> English class is the most useful. The program is worth it. My mother didn't recognize me because when I first got home, I was rushing around doing things in an organized way. The program is good. Without it, I would have been lost.

> I love the Summer Bridge program. It helps me think and even play piano. I am more disciplined and independent even though I'll be living at home during the fall semester.

> The program is the greatest. I'd like for this program to be around when my children are getting ready for college. This is the thrill of my life. This is a very supportive staff.

Students were also very enthusiastic about the friendships they formed with their peers and program staff. For example:

> The best are the friendships that are made because you need friends to get through college.

> Summer Bridge built up everyone's confidence. We have a family here. This is the fourth week, and I can see the transformation already.

> Summer Bridge is an excellent program. The instructors take time to explain. They opened my eyes about the world.

> College was this big thing at first, but now it is not intimidating at all. I have made new friends, and we'll all be together this Fall.

Students also expressed appreciation for the orientation they received in the program, and how they now felt confident to begin college. For example:

> Summer Bridge gives us access to all aspects of college life and support systems.

> I learned how college classes are run. All these things helped me learn the college rules.

> I love dorm life and have become very familiar with the campus.

> I won't be afraid when the school starts in the Fall.

> Orientation is a helpful course because the instructor is so personable. I've met a lot of people and have gotten to know the campus well. I intend to get into extracurricular activities.

> I love the Summer Bridge program because it helps me use my time and the resources. It gives us independence and responsibility.

Summer Bridge was Usually Operated from the EOP Office and Relied Heavily on all EOP Staff.

Practically all campuses operated their Summer Bridge program from the EOP office and served mainly incoming EOP students. The reason for such a prevalent practice was that EOP had traditionally recruited and served underrepresented minorities and had a tradition of running its own summer orientation programs not unlike that of Summer Bridge. For example, Fresno had its first "Summer Bridge" in 1968. With such well-established summer program staff and mechanism, it was natural for the campus leadership to ask EOP directors to take charge of designing and implementing Summer Bridge.

However, on four campuses, the policy of involving the campuswide community and providing basic skills instruction was taken to mean that the program must not be offered from the EOP office. These exceptions were Bakersfield, where the program was led by the SAA director; Fullerton, where both Summer Bridge and ILE were operated from the Learning Resource Center and were led by the director of the Center; Los Angeles, where the program was managed by the acting director of the Learning Resource Center and Special Assistant to the Vice President of Academic Affairs; and Sacramento, where Summer Bridge was directed by an Associate Professor and Chair of Ethnic Studies department.

Some Campuses Continued to Debate Whether to House the Summer Bridge Program in Academic Affairs or Student Services.

This theme is related to the last one. EOP was usually housed within Student Services, while the Learning Resouce Center operated within Academic Affairs. On a number of campuses, because Summer Bridge was to provide academic preparation in addition to orientation, attempts were made to move Summer Bridge out of EOP and into the Academic Affairs. The history of the Summer Bridge program at Los Angeles illustrates this ongoing debate. The 1985 Summer Bridge was operated out of EOP; the 1986 one, from the Learning Resource Center, which was a part of Academic Affairs; and the 1987 program was returned to the hands of EOP leadership.

Since the CSU Chancellor's Office launched the educational equity initiative in 1986, a number of campuses have seriously responded to the challenge to consolidate and coordinate educational equity efforts. In the push to make all such efforts more broadly based, the debate on where to house the Summer Bridge program has, in one sense, become moot. For example, at Northridge, the Summer Bridge Director was determined to make the program a campus-wide effort; the program's central coordinating committee included three Associate Vice Presidents, one each from Student Affairs, Academic Affairs, and Academic Services. A number of other campuses are in the process of creating hybrid offices to house educational equity programs such as Summer Bridge.

Coordination between ILE and Summer Bridge Varied across Campuses.

ILE and Summer Bridge were required by the Chancellor's Office to have close coordination. For example, directors of both programs were required to sign off on each other's proposal. There was, however, great variation in the degree of coordination between the two. As reported in Chapter Two, over one-fourth of the Summer Bridge students eligible for ILE did not continue into the program; on some campuses, coordination meant little more than the formality of proposal sign-off. The implementation of the Educational Equity Plan in the System will help to promote a more genuine coordination between the two programs, because the directors for both often serve together on the campus committee for educational equity.

Regarding coordination between the two programs, San Diego stood out in that the EOP office and the Academic Skills Center worked closely to develop both programs. The instructional faculty, counseling staff, and tutors were essentially the same for both programs. The division of labor was along the leadership line: The leadership for Summer Bridge came from the EOP Office, while the leadership for ILE came from the Academic Skills Center. At Chico, the same faculty were employed in both programs, and courses were designed to avoid overlap in content so as to make the transition from Summer Bridge to ILE smoother for the students.

CHAPTER FOUR

OUTCOMES FOR STUDENTS

The external evaluation of the Summer Bridge and Intensive Learning Experience programs assessed the outcomes for students in three broad areas: Retention, adjustment to university life, and student learning. Naturally, the relative emphasis on these, as well as the assessment measures, differed for Summer Bridge and for Intensive Learning Experience. Basic differences in program design, goals, selection procedures, and duration required that outcomes be assessed separately.

Retention is an anticipated outcome for both Summer Bridge and ILE, and this common goal is measured in the same way. Adjustment to university life, on the other hand, is an integral part of Summer Bridge, but not a specific goal of the ILE program. With regard to student learning, the academic emphasis of ILE, plus the fact that Summer Bridge lasts only four-six weeks compared to as much as two full semesters for ILE, expectations are quite different. In the presentation of findings, care is taken to make explicit these differences in expected outcomes and evaluation strategies for each.

Retention

Student retention represents the major outcome to be examined in this evaluation. Not only are American Indians, Blacks, and Hispanics underrepresented in the CSU system, this problem is compounded by the fact that fewer students from those groups persist to graduation. Systemwide studies have shown, for example, that after five years, only 38.8% of regularly admitted Blacks were either still enrolled or had graduated, compared to 50% of Whites. Among special admits, 23.7% of Blacks and 32.4% of Whites were retained (Division of Analytical Studies, 1985).

One goal of the evaluation is to identify factors associated with greater retention. These may have to do with features of university campus programs, or characteristics of students such as admission basis, ethnicity, or test scores. A first step in identifying factors is to see which sub-populations of students do or do not persist. To that end, therefore, we have analyzed retention rates from a variety of perspectives.

In interpreting retention rates, some caution must be exercised. First, one- and two-year retention rates are only an indication of students' persistence. Students in the 1980s do not enroll continuously to graduation, but may stop out for several terms. This is particularly true for those for whom finances are an important consideration, as it is for most of the students in these programs. Further, Summer Bridge and ILE program enrollment is a factor that should be considered. Retention rates for campuses with particularly small numbers of students, for example, exaggerate differences, since one dropout can reduce the retention rate by as much as 10 percentage points.

Retention of Summer Bridge Students

Outcomes for Summer Bridge students were measured along several dimensions. Of primary importance were the two main goals of the program, student retention in the university and adjustment to university life. We have looked at the retention of Summer Bridge students by examining combinations of four variables, the campus program, student admission basis, ethnicity, and performance on ELM and EPT. We also separated out retention of underrepresented minorities for closer scrutiny.

Retention by campus and admission basis. Figure 4.1 displays two-year retention rates by campus and admission basis for the 1985 cohort of Summer Bridge students (See Table B.1, Appendix B, for detail). Consider first the system and admission basis totals. Overall, Summer Bridge students were retained at a rate of nearly 60%. This figure is significantly lower than that for all first-time freshmen entering in 1985 (65.5%), and below that for the 1984 comparison group of ILE-eligible students as well (62.8%). This difference can be at least partially explained by the fact that special admits are overrepresented in the Summer Bridge population. Systemwide, special admits typically account for less than 20% of the population; while they make up roughly two-thirds of Summer Bridge.

When compared by admission basis, the retention rates of Summer Bridge students looked much better. The retention rate for regular admits in the 1985 Summer Bridge was 67.6%, which is virtually the same as the rate for 1985 systemwide (67.8%) or for the 1984 ILE-eligible (67.2%) comparison group. For special admits, the Summer Bridge and 1985 systemwide totals were both 54.5%, while the 1984 comparison group had a rate of 56.6%. (Retention rates for the 1984 ILE-eligible cohort are displayed on Table B.15, Appendix B).

Among campuses, only Fresno exceeded a 70% retention rate; other campuses with high retention rates were Dominguez Hills (67.7%), Los Angeles (66.9%), and San Francisco (64.1%). In all, six campuses had rates in the 60-69% range; nine, from 50-59%; and three, below 50%.

When campus rates are broken down by admission basis, some interesting variations appear. As expected, rates for regular admits are consistently higher than those for special admits. Those campuses most effective with regular admits, for example, were Humboldt, San Francisco, San Jose, and Hayward; however, among these, only San Jose had enrolled more than 10 regularly admitted students. Of those enrolling a more substantial number of students, Dominguez Hills, Fresno, Chico and Long Beach had the highest rates (over 70%). Seven programs had rates from 60-69%, and four were in the 50-59% range.

Those programs with the most success with special admits were Fresno (72.1%), Los Angeles (63.2%), and San Francisco (62.7%). Eight campuses had retention rates in the 50-59% range for special admits; and eight below 50%.

CAMPUS RETENTION BY ADMISSION BASIS
1985 SB

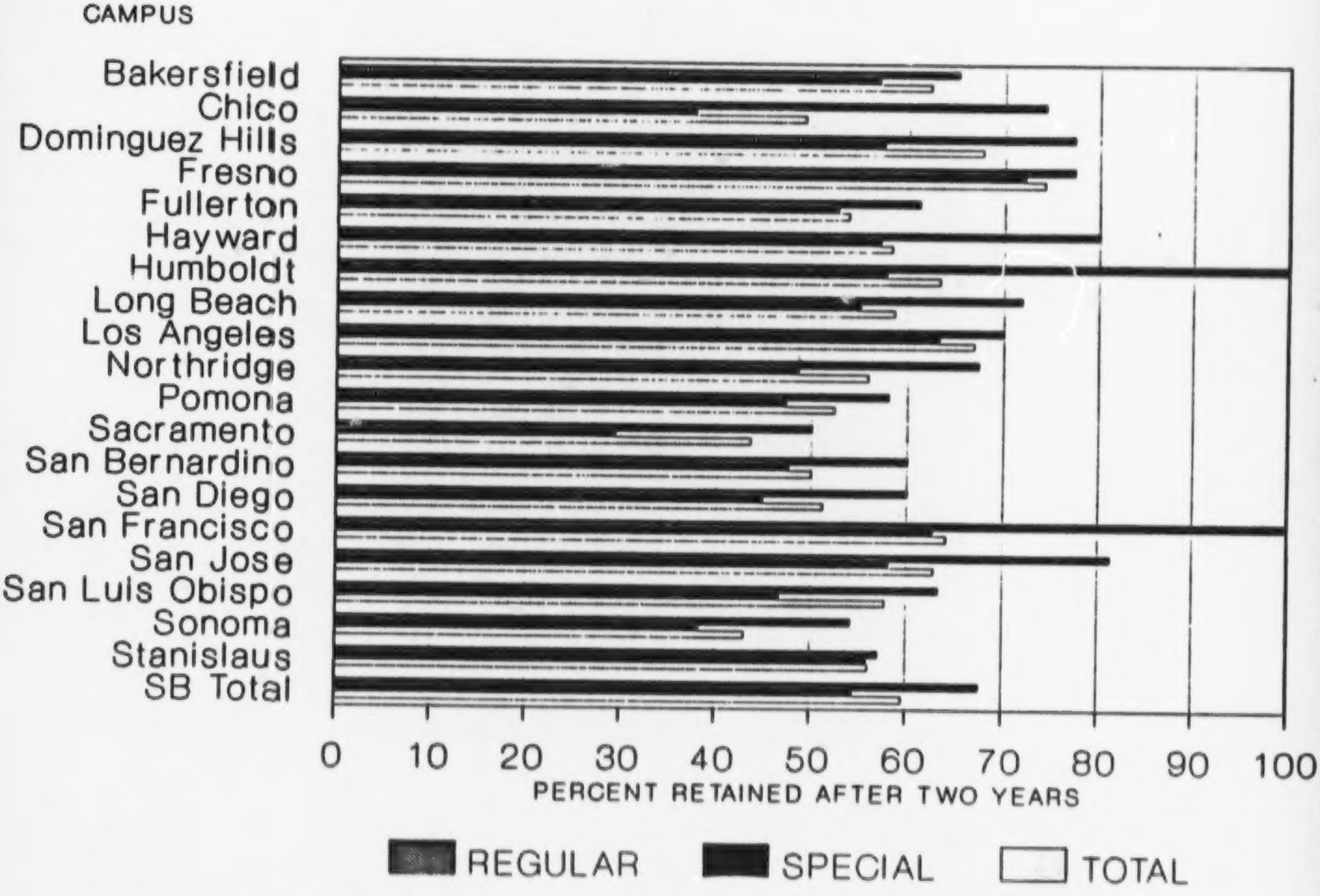


FIGURE 4.1

Figure 4.2 shows 1-year retention rates for the 1986 cohort by campus and admission basis (See Table B.2, Appendix B, for detail). These data show patterns of retention similar to those for the 1985 cohort. For instance, Summer Bridge students have a lower one-year retention rate compared to a systemwide total, but are higher when broken down by admission basis. Because systemwide data are not yet available for 1986 freshmen, comparisons are with the one-year retention rates for the 1985 cohort.

Of 1986 Summer Bridge students, 73.3% were still enrolled a year later, compared to 77.2% systemwide in the 1985 cohort. As before, this difference can be partly explained by the overrepresentation of special admits in the Summer Bridge population. When separated by admission basis, however, Summer Bridge retention rates were higher for both regular and special admits. For regular admits, the Summer Bridge retention rate was 79.9%, compared to only 78.5% systemwide. Figures for special admits were 73.3% for Summer Bridge and 70.9%, systemwide.

Programs having the highest retention rates were at Los Angeles, Fresno, Long Beach and Sacramento, where over 80% of Summer Bridge students were retained. Another 12 campuses had retention rates from 70-79%, and only three programs were below 70%.

As with the 1985 cohort, regular admits had a higher retention rate than special admits. At the campus level, 10 campuses had retention rates of over 80% for regular admits; only Fresno and Los Angeles were that successful with special admits.

Retention by admission basis and ethnicity. Figure 4.3 (See Table B.3, Appendix B, for detail) shows how admission basis and ethnicity interact with regard to retention for the 1985 Summer Bridge cohort. For all Summer Bridge students in the 1985 cohort, the highest retention rates were obtained by Asian/Pacific Islanders (73.0%) and Filipinos (70.0%). Over 60% of Other Hispanic and Mexican American students were retained, and over 50% of Blacks. In all, underrepresented minorities made up 68.2% of those students retained; they accounted for 70.7% of the original enrollment.

When examined by admission basis, this pattern of retention is maintained. Regular admit Asian/Pacific Islanders had the highest retention rate (78.7%), followed by Native Americans(76.5%), Filipinos (68.4%), and Mexican Americans (66.3%). Among regular admits, all ethnic groups had retention rates that exceeded 60%, with Blacks (62.5%) and Whites (63.9%) at the lowest. Both were lower than the systemwide retention rate for 1985 regular admits (65.5%).

For special admits, the highest retention rates were for Filipinos (71.8%), Asian/Pacific Islanders (67.1%), and Other Hispanics (65.5%). Systemwide, 1985 special admits had a retention rate of only 54.5%; once again, only Blacks (47.5%) and Whites (47.8%) failed to achieve a comparable rate.

CAMPUS RETENTION BY ADMISSION BASIS
1986 SB

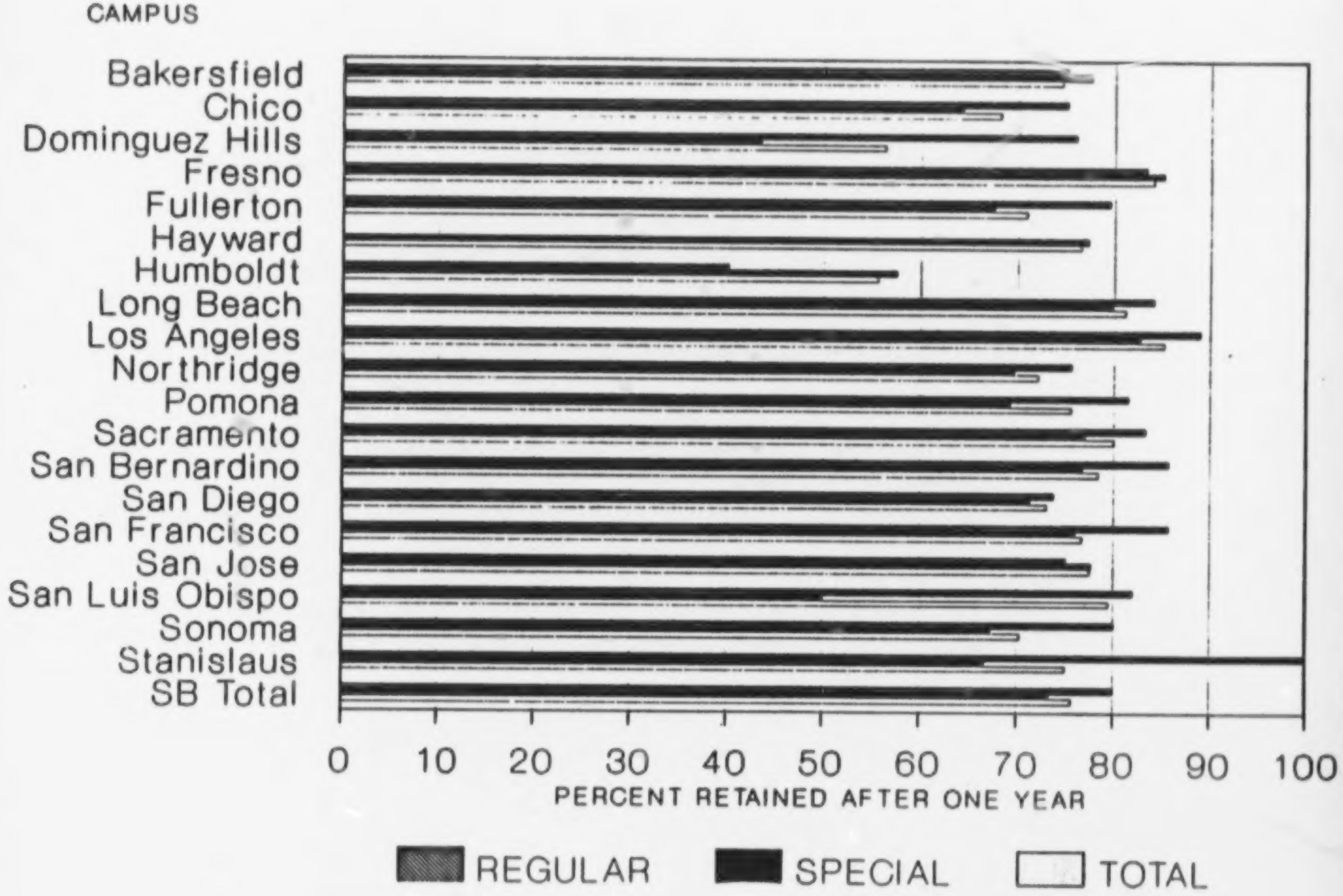


FIGURE 4.2

RETENTION BY ADMISSION BASIS
AND ETHNICITY: 1985 SB

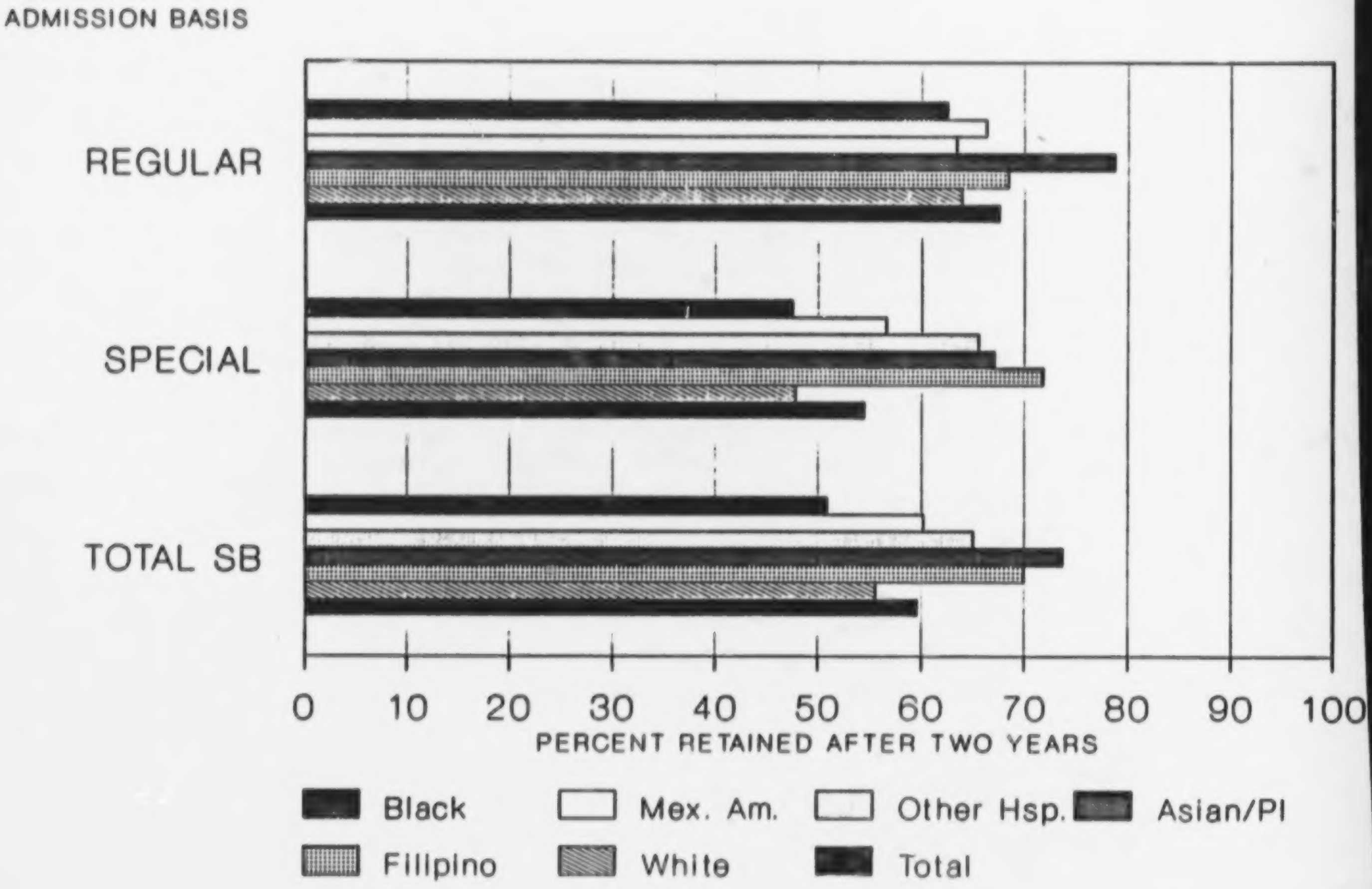


FIGURE 4.3

For some ethnic groups, admission basis did not appear to be an important variable in retention. Special admit Filipinos and Other Hispanics, for example, had a higher retention rate than their regular admit peers. On the other hand, both Black and White special admit students had signicantly poorer retention rates than regular admit counterparts.

Figure 4.4 (See Table B.4, Appendix B, for detail) presents retention figures for the 1986 Summer Bridge by admission basis and ethnicity. For the total Summer Bridge, all but White and Native American students had retention rates of over 70%; nearly 90% of Filipinos and Asian/Pacific Islanders were still enrolled a year later. Among regular admits, retention rates for Filipinos, Other Hispanics, and Mexican Americans exceeded 80%, and rates for all groups were over 70%. By comparison, 77.2% of 1985 regular admits systemwide were still enrolled after one year. Only Blacks (74.0%) and Whites (71.9%) fell below this level.

Figures for special admits show that over 80% of Asian/Pacific Islanders and Filipinos were retained. Rates for Mexican Americans (77.4%) and Blacks (70.3) were also high, and compared favorable with that for special admits in the 1985 system cohort (70.9%). For the 1986 Summer Bridge, only Other Hispanics (66.2%) and Whites (65.0%) were below the system figure.

Within each ethnic group, special admits had lower retention rates compared to regular admits. An exception were Asian/Pacific Islanders, whose rate for special admits exceeded that of regular admits. In addition, the rate for special admit Mexican Americans was only slightly less than for regular admits. Other Hispanics, however, had a retention rate nearly 20 percentage points less than their regular admit peers.

Retention of underrepresented minorities. An important goal of the Summer Bridge program is to increase the retention and graduation of underrepresented minority students. In the CSU, this means American Indians, Blacks, and Mexican-Americans, and Other Hispanics. To explore the program's effectiveness in this area, we have extracted retention data on these students for each campus. Figure 4.5 (See Table B.5, Appendix B, for detail) displays two-year retention rates for 1985 Summer Bridge underrepresented minority students by campus.

The cohort of 1985 underrepresented minority students in Summer Bridge had a two-year retention rate of 56.9% -- less than the overall Summer Bridge rate of 59.1%, but higher than that of comparable students in the 1984 ILE-eligible group, for whom the rate was only 53.3% (62.9% for all students). Thus, while the retention of all Summer Bridge students was less than for the 1984 cohort, underrepresented minority students were retained at a higher rate.

Campuses having the highest two-year retention rate for underrepresented minorities in Summer Bridge were Fresno (73.5%), Humboldt (66.7%), Dominguez Hills (66.1%), and Bakersfield (62.1%). In all, 11 campuses had retention rates over 50%.

**RETENTION BY ADMISSION BASIS
AND ETHNICITY: 1986 SB**

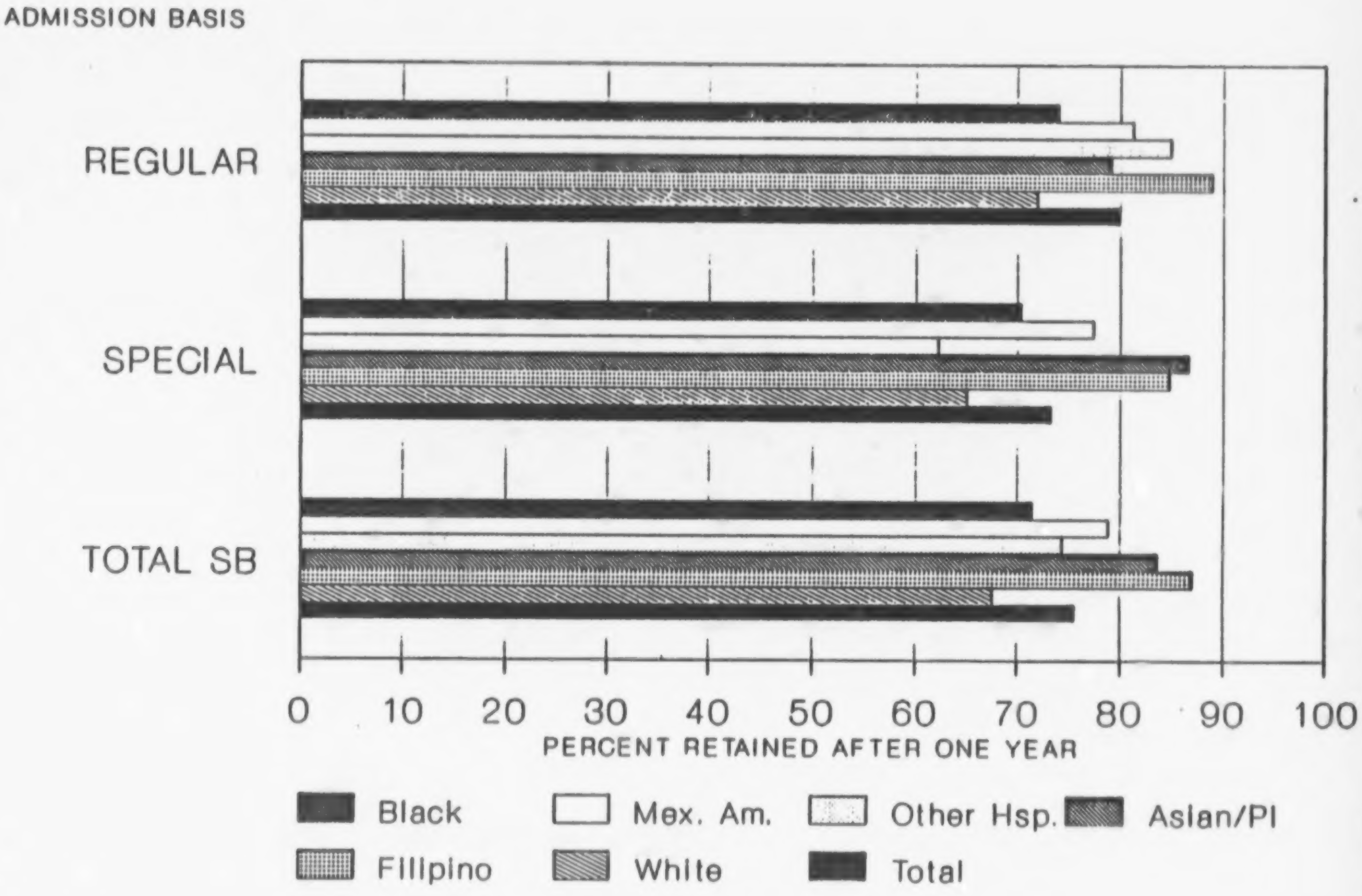


FIGURE 4.4

CAMPUS RETENTION OF UNDERREPRESENTED MINORITY STUDENTS: 1985 SB

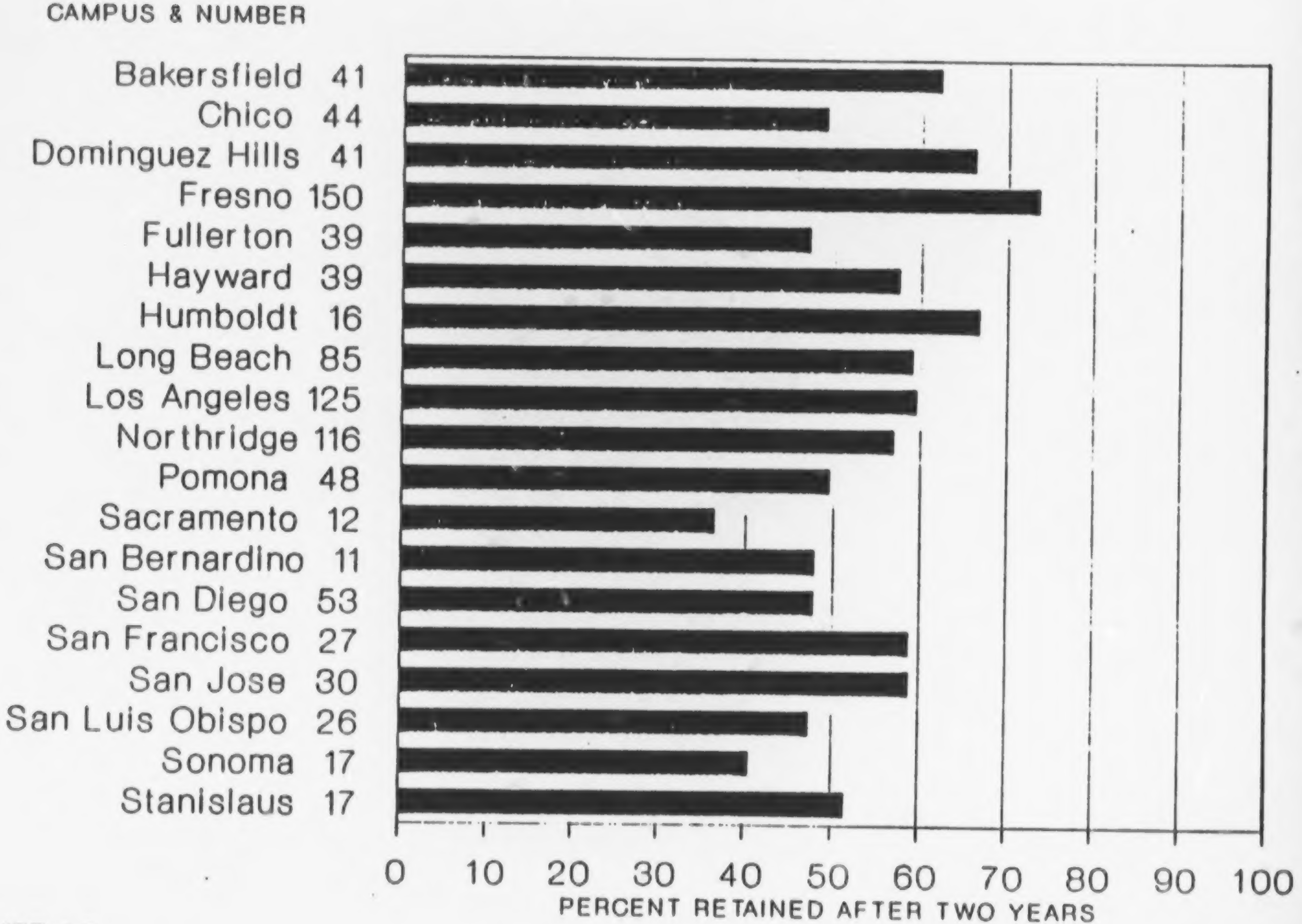


FIGURE 4.5

Since the number of underrepresented minority students originally on some campuses was quite small, caution must be exercised in interpreting retention rates. For example, at Sacamento, the Summer Bridge program started with only 33 underrepresented minority students; thus, the loss of only one student reduces the retention rate by nearly three percentage points. This does not diminish the fact, however, that 21 of 33 students had left the campus since participating in Summer Bridge two years earlier.

Figure 4.6 displays the one-year retention rates of underrepresented minorities in 1986 Summer Bridge by campus (See Table B.6, Appendix B, for detail). Overall, 74.9% of 1986 Summer Bridge underrepresented minorities were retained, which is only 2.3 percentage points less than the system total for 1985 freshmen (77.2%). The rate was higher than that for underrepresented minority students from the 1984 ILE-eligible cohort (71.3%).

Among campus programs, the highest rates were achieved at Los Angeles (86.2%), Fresno (83.9%), Long Beach (80.5%), and Stanislaus (80.0%). Eleven other programs had rates that exceeded 70%.

Retention by ELM and EPT Performance. A final way in which we have examined retention among Summer Bridge and ILE students is in relation to scores on the Entry Level Mathematics (ELM) examination and English Placement Test (EPT). Table 4.1 shows two-year retention rates for the 1985 Summer Bridge cohort by ELM and EPT score bands. Students who scored in the first three categories for each exam were ILE-eligible.

The retention rates by ELM score range from less than 45% to nearly 70%, a span of almost 25 percentage points, while rates by EPT cover less than eight. In addition, the relation between test performance and retention differs for the two exams. There appears to be a positive correlation between ELM score and retention; score bands show progressively higher retention rates. With EPT, however, this is not the case. Students scoring in the lowest score category had a retention rate equal to that of students in the 146-150 range and higher than that of students in between; their retention rate was slightly higher than that of the total.

These patterns are borne out in the data for the 1986 Summer Bridge group (Table 4.2). There, the difference between one-year retention rates by score category is 17.9 percentage points for ELM against 6.9 for EPT. Finally, higher ELM scores once again seem to be related to greater retention. Further, those with the lowest scores on the EPT actually have the highest retention rate by category.

Such findings suggest that low performance on the ELM is more strongly related to poor retention than is similar performance on the EPT. Those students with the weakest math skills are among the least likely to persist. Since only basic arithmetic knowledge is required for a score of 15 or less on the ELM, these students must be at a great disadvantage when it comes to baccalaureate-level courses.

CAMPUS RETENTION OF UNDERREPRESENTED
MINORITY STUDENTS: 1986 SB

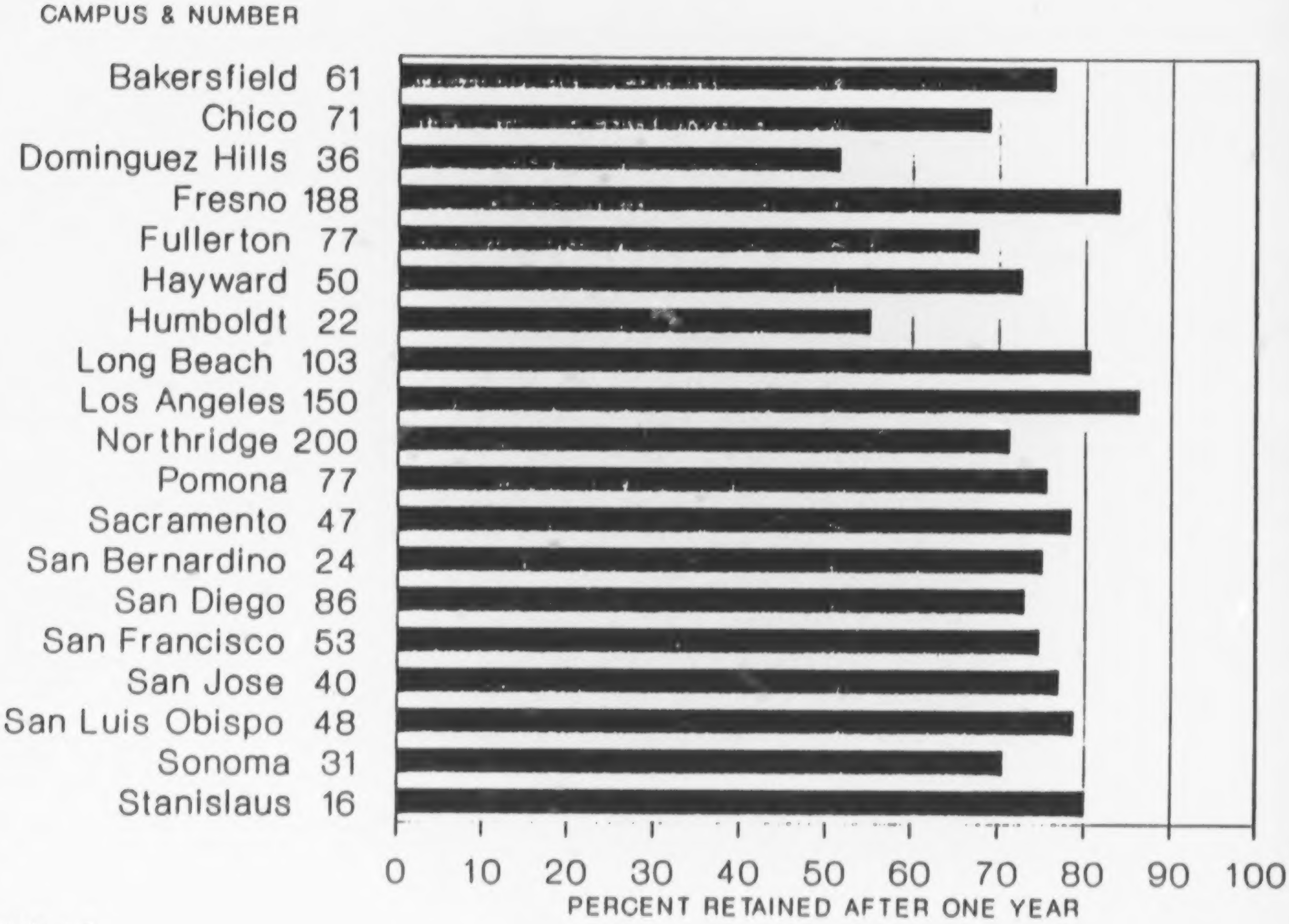


FIGURE 4.6

Table 4.1

1985 Summer Bridge Two-Year Retention Rates by ELM and EPT Score Categories

ELM				EPT		
Scores	N	%		Scores	N	%
1 - 15	55	44.7		120 - 126	62	62.0
16 - 21	132	55.2		127 - 135	235	58.9
22 - 25	100	54.3		136 - 141	185	58.5
26 - 32	170	60.9		142 - 145	116	62.0
33 - 43	199	66.6		146 - 150	146	66.1
44+	145	69.4		151+	100	65.8
Total	801	60.1		Total	844	61.4

Table 4.2

1986 Summer Bridge One-Year Retention Rates by ELM and EPT Score Categories

ELM				EPT		
Scores	N	%		Scores	N	%
1 - 15	58	63.0		120 - 126	115	82.1
16 - 21	133	66.8		127 - 135	304	76.4
22 - 25	142	78.5		136 - 141	287	77.4
26 - 32	245	81.1		142 - 145	179	75.2
33 - 43	351	78.2		146 - 150	225	78.7
44+	300	80.9		151+	149	76.0
Total	1229	77.1		Total	1259	77.3

One explanation for the high retention rates among those scoring low on the EPT is that these could be Asian/Pacific Island limited-English-proficient students with strong math skills. Retention data by ethnicity show that this group has consistently high retention rates.

As part of the evaluation, we explored the hypothesis that students with low scores on both the ELM and the EPT would be most at risk of dropping out of the university. Table 4.3 displays crosstabulations of two-year retention rates for 1985 Summer Bridge students in the bottom quartile of both the ELM and EPT. While the small number of students in some cells may cast doubt on these data, they do provide evidence for the hypothesis. These retention rates are generally below 50%.

Further, this table shows that most of those students with very low ELM scores also had low EPT scores. Of the 55 students in the 1-15 band on Table 4.1, 48 (87.2%) also scored in the lowest quartile of EPT. In contrast, only 20 of 62 (32.2%) who scored 120-126 on EPT also had low ELM scores. This supports the idea that the lowest category in EPT is mainly made up of limited-English-proficient students with adequate math skills. It also provides additional evidence for ELM as a predictor of retention.

Table 4.4 shows one-year retention rates by EPT and ELM scores for the 1986 Summer Bridge cohort. Once again, the small numbers make the table difficult to interpret; however, two points are clear. First, the retention rates for these students are not dramatically different from other students in the same score bands; it may be that difference in retention shows up later. Second, low ELM scores again appear to be associated with poor EPT scores, while the converse is not true. Fully 52 of 58 in the 1-15 band on ELM were also in the EPT lowest quartile (89.6%), but only 39 of 115 (33.9%) in the 120-126 range on EPT also had low ELM scores.

Campus retention of underrepresented minorities in 1986 Summer Bridge is compared in Figure 4.6 (See Table B.6, Appendix B, for detail). After one year, the overall retention rate of targeted groups was 74.9%. By comparison, the rate for the same groups in the 1984 ILE-eligible cohort was 71.3%. Systemwide rates for 1985 were 77.2%.

Campuses having the highest retention rates were Los Angeles (86.2%), Fresno (83.9%), Long Beach (80.5%), and Stanislaus (80.0%); eleven other campuses exceeded a 70% rate.

Summary of Summer Bridge retention. In this section, retention rates of Summer Bridge students were examined from several perspectives, by campus and admission basis, by admission basis and ethnicity, and by entering test scores. In addition, retention rates of underrepresented minority students were compared across campuses. The following findings emerged.

Analysis of data on retention by campus and admission revealed at least two things. First, when compared by admission basis, Summer

Table 4.3

1985 Summer Bridge Two-Year Retention: Crosstabulations of ELM & EPT Scores

	ELM Score							
	1-15		16-21		22-25		TOTAL	
EPT Score	N	%	N	%	N	%	N	%
120-126	7	35.0	10	50.0	3	42.9	20	42.6
127-135	30	45.5	49	53.3	32	51.6	111	50.5
136-141	11	50.0	30	47.6	33	62.3	74	53.6
TOTAL	48	44.4	89	50.9	68	55.7	205	50.6

Table 4.4

1986 Summer Bridge One-Year Retention: Crosstabulations of ELM & EPT Scores

	ELM Score							
	1-15		16-21		22-25		TOTAL	
EPT Score	N	%	N	%	N	%	N	%
120-126	11	68.8	18	69.2	10	90.9	39	73.6
127-135	32	69.6	47	63.5	40	76.9	119	69.2
136-141	9	47.4	38	69.1	37	78.7	84	69.4
TOTAL	52	64.2	103	66.5	87	79.1	242	69.9

Bridge students had retention rates higher than did students systemwide. When data by admission basis were collapsed, however, the reverse was true. Second, some campus programs appeared to be particularly effective as measured by retention; Fresno, Los Angeles, San Francisco, and Long Beach had the most consistently high rates.

Asian/Pacific Islanders and Filipinos consistently achieved the highest rates of retention. Two-year rates for Asian/Pacific Islanders, for instance, ranged from over 67.1% for special admits to 78.7% for regular. Mexican American and Other Hispanic students also had comparatively high rates of retention; but those of Black students were uniformly low.

Special admit Filipino, Asian/Pacific Islander, Other Hispanic, and Mexican American students had retention rates higher than the 1985 systemwide rate for special admits. When retention rates were compared to those of the 1984 ILE-eligible cohort, Summer Brdige appeared to be most effective with Mexican American, Other Hispanic, and Filipino students.

Summer Bridge appeared to be effective in retaining underrepresented minority students. The retention rates of underrepresented minority students in the 1985 and 1986 Summer Bridge students were greater than for comparable students in the 1984 ILE-eligible cohort, although less than for that cohort overall. Campuses having the highest two-year retention rate for underrepresented minorities in Summer Bridge were Fresno, Humboldt, and Dominguez Hills, whose retention rates exceeded that of the system (65.5%). Eleven campuses had retention rates over 50%. Highest one-year rates for 1986, over 80%, were at Los Angeles, Fresno, Long Beach, and Stanislaus.

Another analysis explored the relationship between students' ELM and EPT scores and retention. Here, two findings are important. First, retention rates increased proportionally to ELM scores, but not EPT. Students scoring in the lowest score category on the EPT had retention rates comparable to those of students with much higher scores. A possible explanation for this discrepancy is that limited-English-proficient immigrant students, particularly Asians, who have consistently high retention rates, might score badly on the EPT, but perform successfully on the ELM.

Second, fewer than half of those students with very low scores on both the ELM and the EPT were still enrolled after two years. The most important variable in this formula appeared to be ELM performance, since poor performance on this exam was often associated with low EPT scores, but not the reverse.

Retention of ILE Students

Expected outcomes for the students in the ILE program are increased retention and improved academic performance and learning. This section describes findings related to retention. Our approach in this analysis parallels that for Summer Bridge. We examined the retention rates of students from two ILE cohorts, 1985 and 1986. To assess this variable, we examined program retention as it related to campus program, student admission basis and ethnicity, and performance on ELM and EPT. As in the previous analysis, we also separated out retention of underrepresented minorities for closer scrutiny.

For the analysis of ILE retention, three comparison groups were available, the ILE-eligible students from the same cohort year, ILE "marginal" students (those scoring between the 25th and 35th percentile), and the 1984 ILE-eligible and marginal groups. Data on these groups are presented when appropriate.

Retention by campus and admission basis. Figure 4.7 (See Table B.7, Appendix B, for detail) displays two-year retention rates by campus and admission basis and ethnicity for the 1985 cohort of ILE students. Overall two-year retention in ILE (59.4%) was roughly comparable to that for the ILE-eligible students in the same year (60.9%), but less than that for the 1984 ILE-eligible group (62.8%).

Comparisons by admission basis were also equivocal. ILE regular admits (64.4%) had rates higher than their 1985 ILE-eligible peers (63.6%), but lower than the 1984 group (67.2%); while special admits (53.1%) were retained at rates lower than either comparison cohort (56.6% and 55.2%).

Campuses having the highest total retention rates were Fresno (74.4%) and San Francisco (72.3%). Six campuses had rates of 60-69%, and six more were in the 50-59% range. Only three campuses failed to retain more than half the students. Four campuses had total retention rates at or above the 1985 systemwide figure, and six were at or above that for the 1984 ILE-eligible rate (62.8%).

With regular admits, five campuses exceeded a 70% retention rate, Fresno (78.0%), San Francisco, (72.6%), Stanislaus (72.5%), Los Angeles (70.5%), and Chico (70.1%); Pomona trailed closely with 69.5%. Eight campuses equaled or bettered the 1985 system rate (67.8%).

For special admits, the picture is different. Only San Francisco (72.3%) and Fresno (70.8%) had rates over 70%. Eight campuses fell below 50%; however, the rate for seven campuses compared favorably with the 1985 special admit retention rate of 54.5%.

Figure 4.8 (See Appendix B, Table B.8 for detail) presents one-year retention rates by campus and admission basis for the 1986 ILE cohort. The retention rate for the cohort was 74.7%, which is less than the one-year rate for the 1985 system (77.2%) and that for the 1984 ILE-eligible group (77.3%) as well.

Campuses having the highest retention rates were Bakersfield, Fresno, Hayward, San Francisco, and San Jose, which all exceeded 80%. Ten others had rates over 70%, and none was below 60%.

Once again, the retention rate for special admits (71.8%) compared more favorably to same-year ILE-eligible students (73.2%) than did regular admits. Their rate was also greater than that for 1985 freshmen, and somewhat less than the rate for the 1984 group

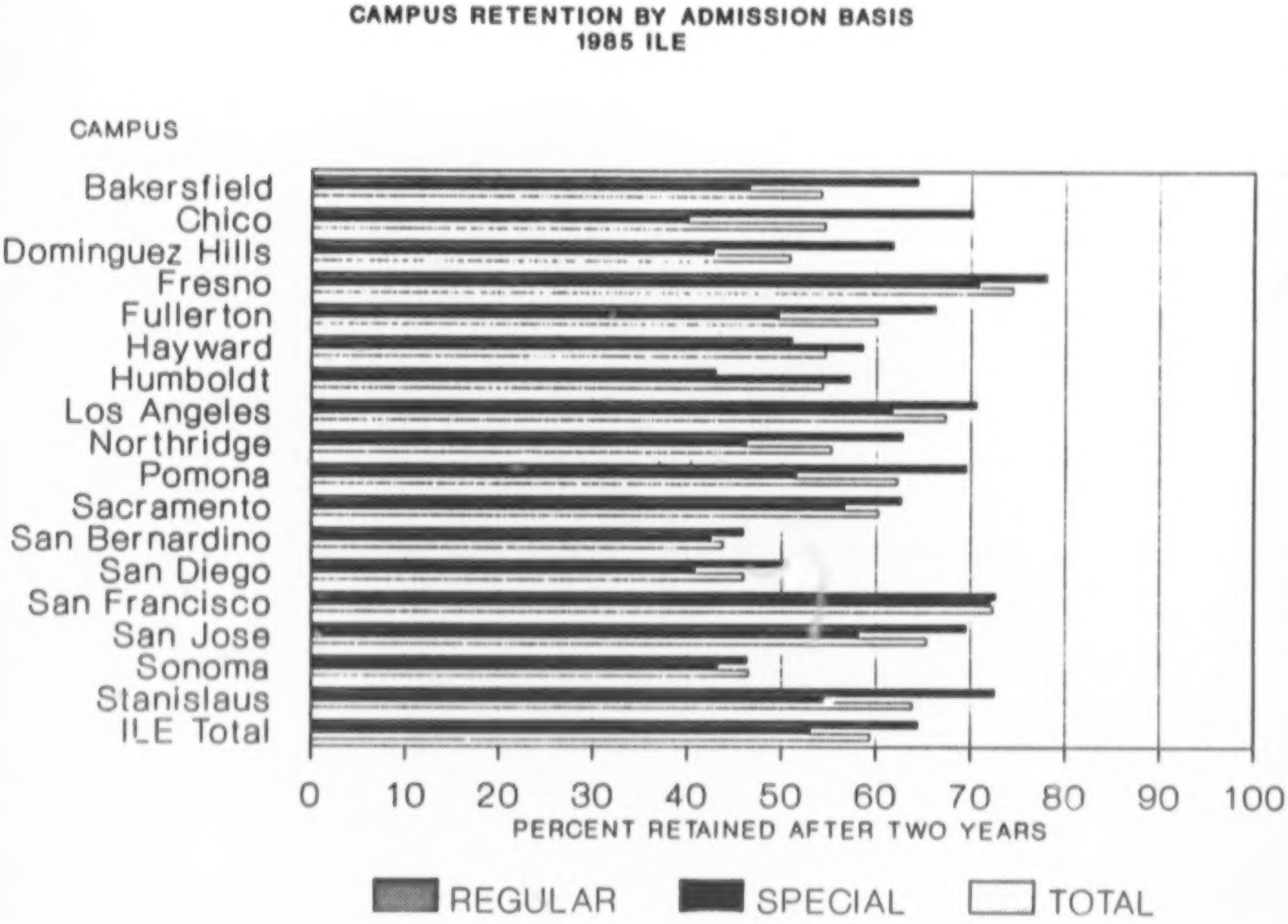


FIGURE 4.7
*Long Beach & San Luis Obispo did not participate in the 1985 ILE Program

CAMPUS RETENTION BY ADMISSION BASIS
1986 ILE

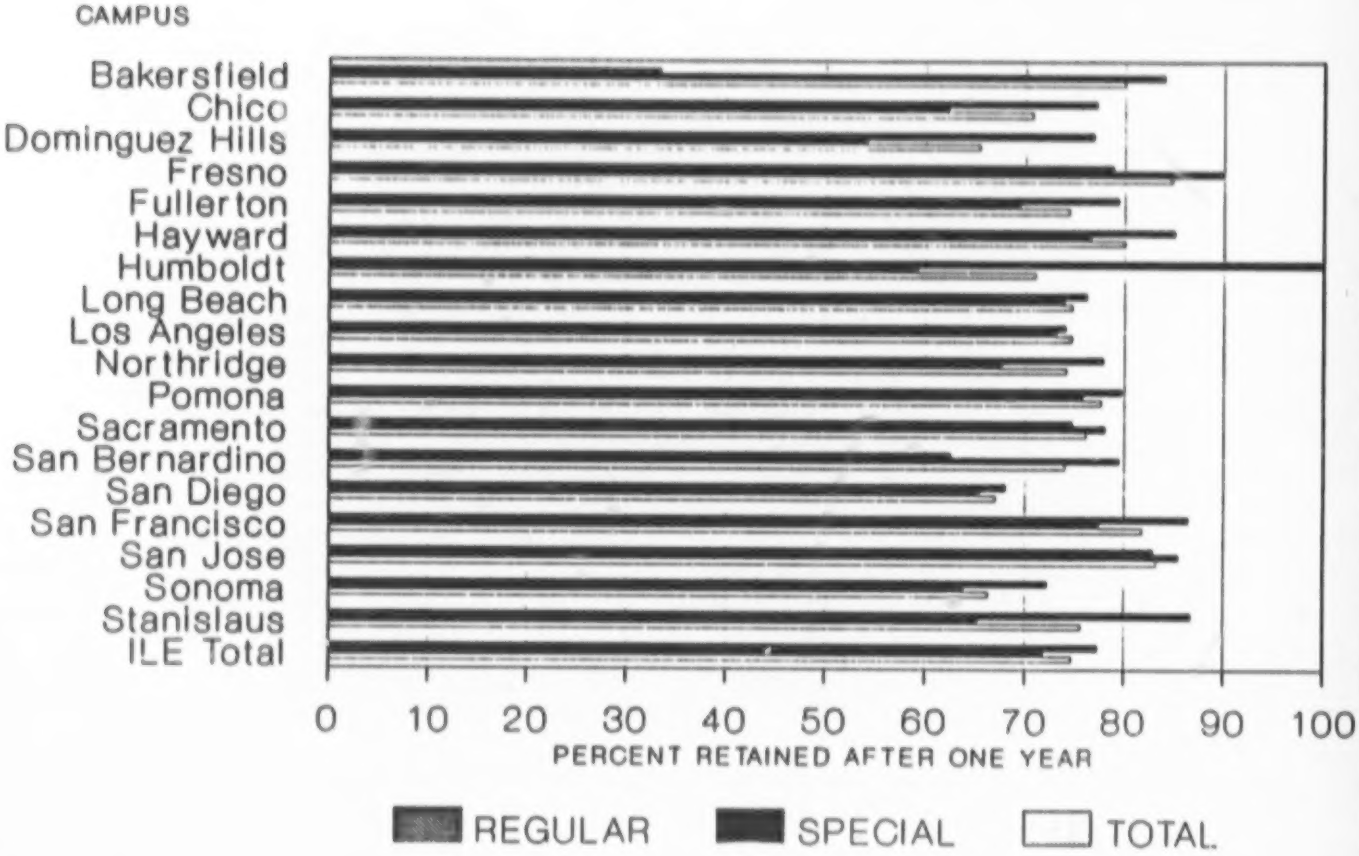


FIGURE 4.8
*San Luis Obispo did not participate in the 1986 ILE Program

(74.1%). Fresno retained nearly 90% of special admits, while Bakersfield and San Jose exceeded 80%.

Retention of regular admits was 77.3%, which is roughly comparable to both the 1985 (78.9%) and 1984 (79.6%) comparison groups. Four campuses retained more than 80% of regular admits.

Retention by admission basis and ethnicity. Underrepresented minority students are a special focus of the ILE program, and their retention is a major goal. Figure 4.9 (See Appendix B, Table B.9 for detail) shows retention rates by admission basis and ethnicity for the 1985 cohort of ILE students. Retention rates for this cohort by admission basis have already been presented; the discussion here will focus on ethnic differences within those categories.

In each admission basis category, the highest retention rates were achieved by Asian/Pacific Islanders; next were Filipinos, followed by Other Hispanics. These three groups had retention rates of over 60%, regardless of the basis for admission. This means that for special admits, these three groups, along with Whites, all exceeded the 1985 system figure (54.5%).

The ILE program was least successful in the retention of Black students: Retention rates were 55.9% for regular admits, 44.4% for special admits, and 46.8% combined. Each of these is far below any recent system figures.

Comparisons with the 1985 ILE-eligible cohort (See Table B.9, in Appendix B) show that those students not enrolled in ILE were retained at about the same rate overall (60.9%) and for regular admits (63.6%). ILE-eligible special admits, however, had a slightly greater retention rate (55.2%).

By ethnicity, there appeared to be no consistent pattern of success with retention when comparing the ILE and ILE-eligible groups. ILE achieved higher retention rates with regularly admitted Blacks, Mexican-Americans, and Filipinos; however, retention of other regular admits was roughly the same. For special admits, ILE retained Other Hispanics and Whites at a higher rate, but was less successful with Blacks, Mexican-Americans, Asian/Pacific Islanders, and Filipinos.

Compared with the 1984 cohort of ILE-eligible students (Appendix B, Table B.15), the 1985 ILE had higher 2-year retention rates for Other Hispanic and Filipino students, but was less successful with Blacks, Asian/Pacific Islanders, and Whites.

Figure 4.10 (See Appendix B, Table B.10 for detail) provides similar data for the 1986 ILE cohort. This shows that ILE retention overall is 74.7%, compared to the 1985 system figure of 77.2% and a retention rate of 77.3% for 1986 ILE-eligible students.

By admission basis, Asian/Pacific Islanders all had retention rates over 80%; and more than 70% of all Filipinos, Whites, and Mexican Americans were retained. The most promising finding is that special admit Mexican Americans had a retention rate of 74.3%, which

RETENTION BY ADMISSION BASIS
AND ETHNICITY: 1985 ILE

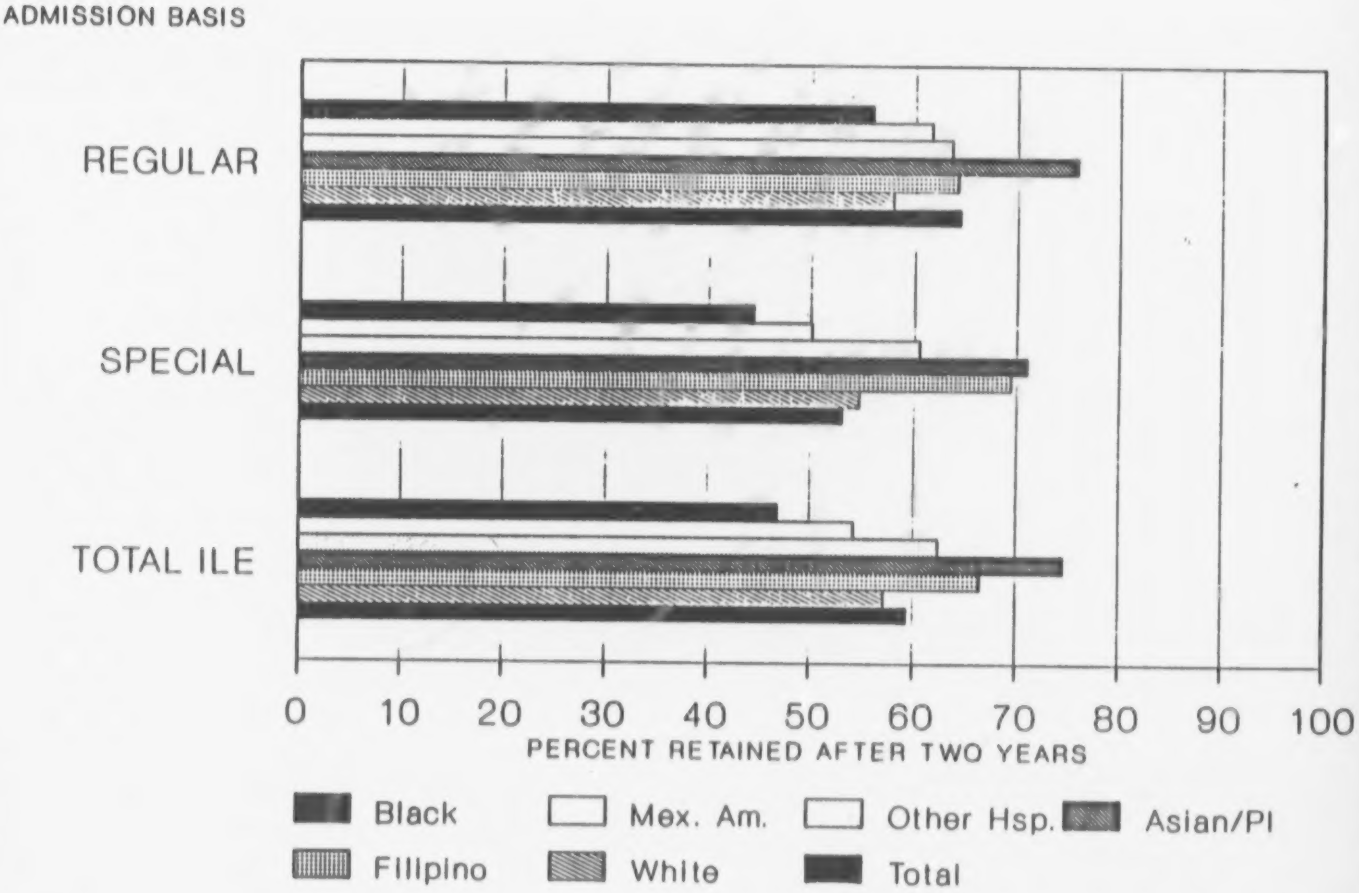


FIGURE 4.9

RETENTION BY ADMISSION BASIS AND ETHNICITY: 1986 ILE

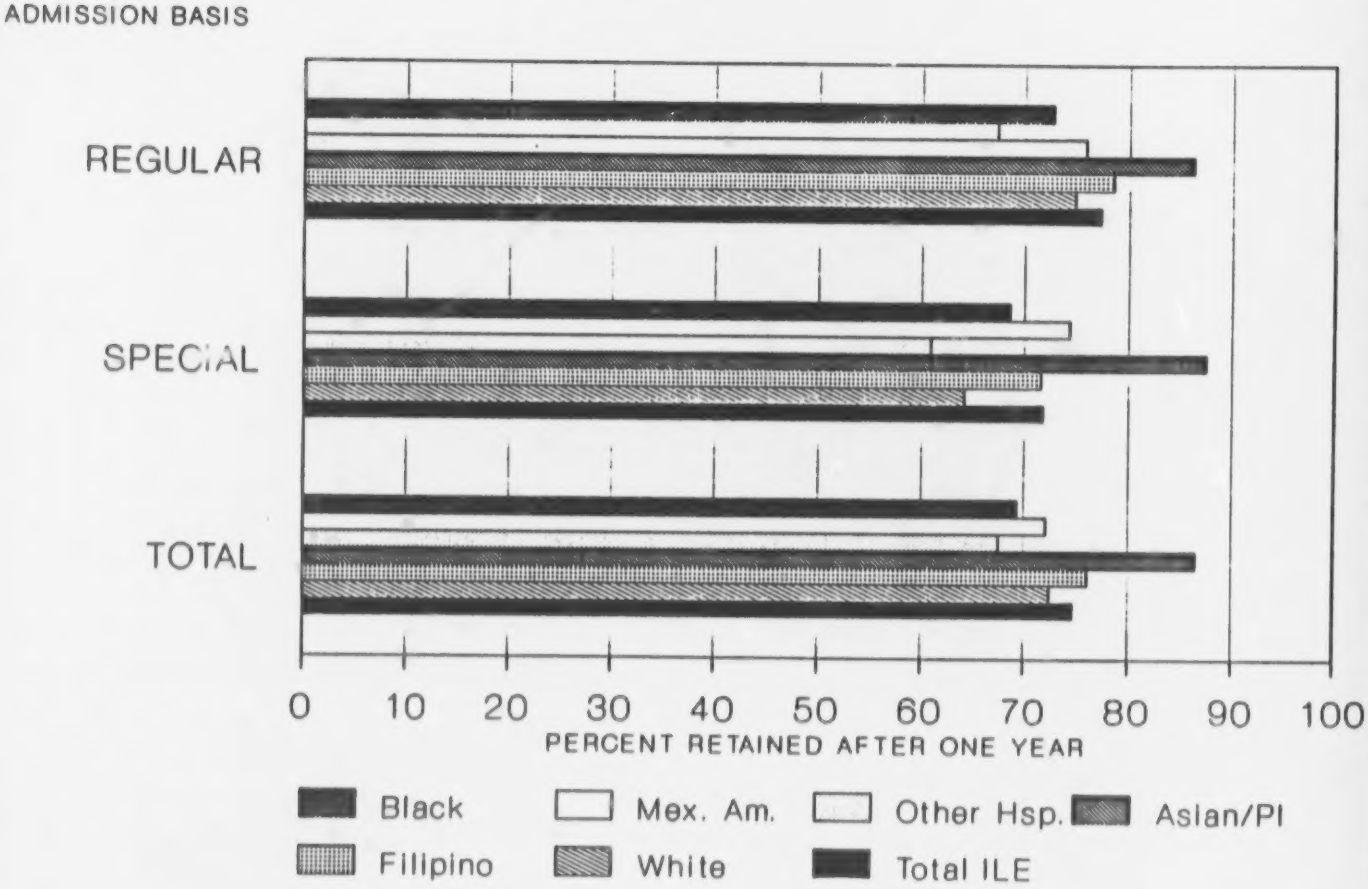


FIGURE 4.10

is higher than either the system total for 1985 (70.9%), or the ILE-comparison groups for 1986 (73.0%) and 1984 (71.4%).

Retention of underrepresented minority students. Figure 4.11 (See Table B.11, Appendix B, for detail) displays 2-year retention rates for underrepresented minority students in the 1985 cohort. Included in this category are Native American, Black, Mexican American, and Other Hispanic students. Following the campus name is the number of students retained after two years.

The retention rate for underrepresented minorities in 1985 ILE (52.1%) is comparable to the rate for similar students in comparison cohorts. For example, only 51.2% of 1985 ILE-eligible underrepresented minorities, and 53.3% from the 1984 ILE-eligible group were retained for two years.

Programs at Fresno, San Francisco, and Stanislaus were most successful, with retention rates over 60%; and Hayward, Los Angeles, Pomona, and San Jose retained more than half their students. Lowest retention rates for minorities were at Chico, San Bernardino, San Diego, and Sonoma.

One-year retention rates for underrepresented minority students from 1986 ILE are shown in Figure 4.12 (See Table B.12, Appendix B, for detail). The total rate for this year was 70.0%, which is somewhat less than that for ILE-eligible students in the same year (72.0%), but close to the 1984 figure (71.3%). For this cohort, only San Jose had a retention rate over 80%. Eight other campuses enrolled more than 70% of their minority students, and none was below 60%.

Campus retention of ILE and comparison group students. Figure 4.13 shows retention by campus of 1985 ILE students compared to that of ILE-eligible students from the same year (See Table B.13, Appendix B). Retention was higher for ILE students at seven campuses; about the same at four campuses; and lower at six other campuses.

On Table B.13, two other comparison groups are added. When each campus ILE retention rate is compared with the ILE-eligible, ILE Marginal, and 1984 ILE-eligible students from that campus, the following picture emerges. Data suggest that the campuses most successful with ILE students are Fresno, Sacramento, Sonoma, and Stanislaus. Those least successful are Chico, Northridge, San Bernardino, San Diego, and San Jose.

Figure 4.14 (See Table B.14, Appendix B, for detail) displays similar comparisons for the 1986 ILE cohort. One-year retention rates are given by campus for ILE and ILE-eligible students. Five campuses had higher retention rates after one year, and another six were about equal. Seven ILE programs had lower 1-year retention rates for their students relative to the ILE-eligible group.

Table B.14 provides additional comparisons with the ILE Marginal and 1984 ILE-eligible groups. After one year, the programs with the best retention rates were Bakersfield and Fresno. Those having

CAMPUS RETENTION OF UNDERREPRESENTED MINORITY STUDENTS: 1985 ILE

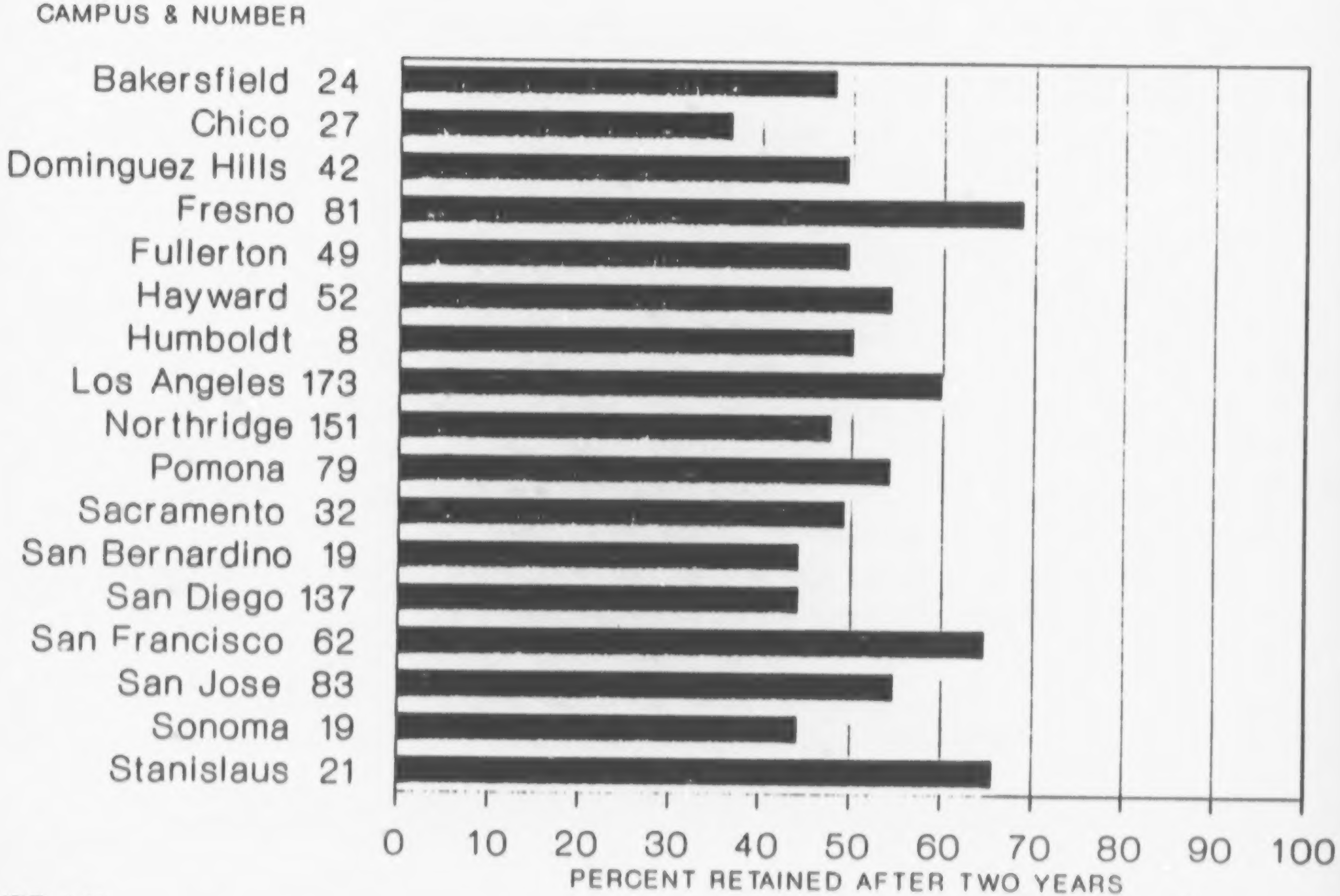


FIGURE 4.11

*Long Beach and San Luis Obispo did not participate in the 1985 ILE Program.

CAMPUS RETENTION OF UNDERREPRESENTED MINORITY STUDENTS: 1986 ILE

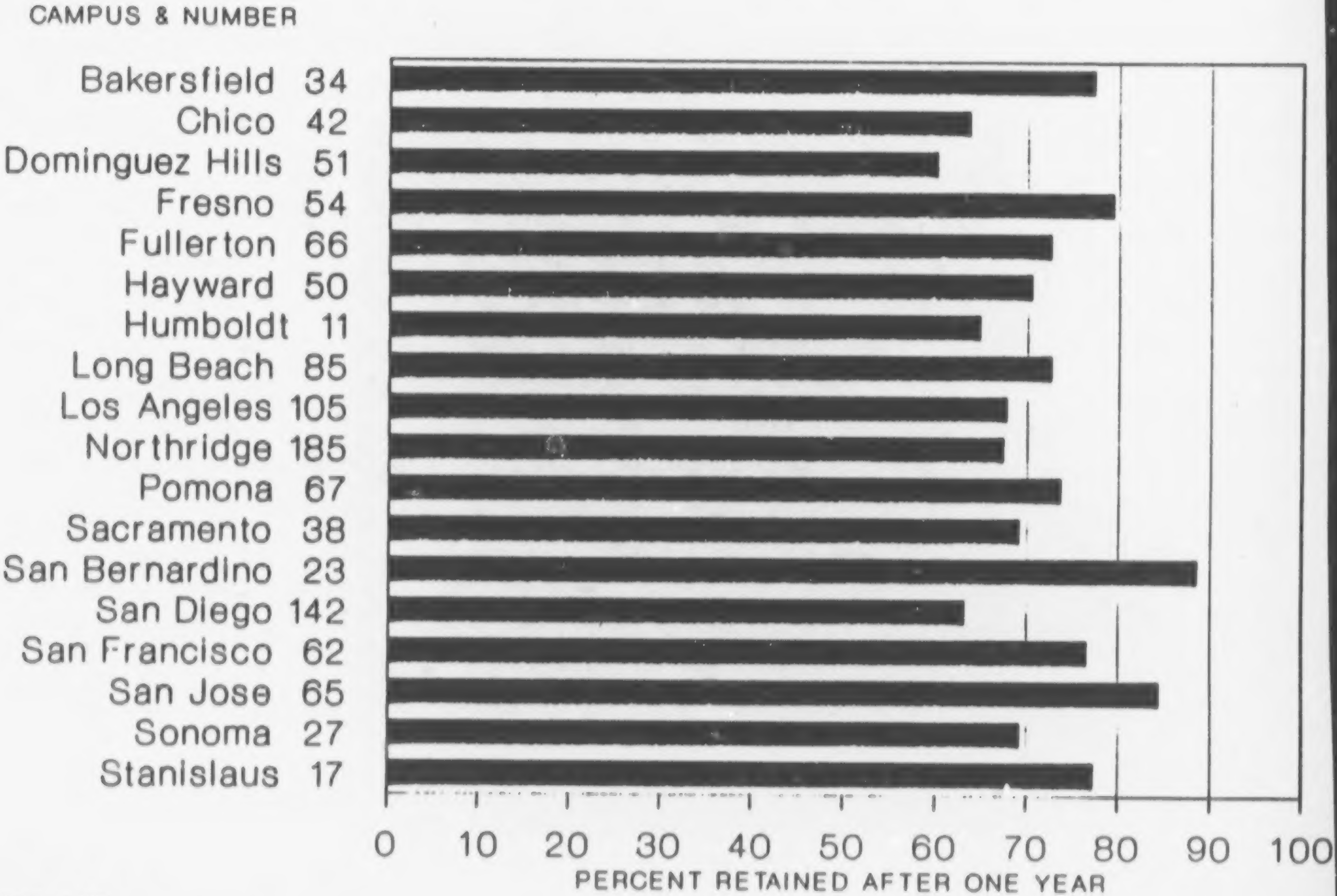


FIGURE 4.12

*San Luis Obispo did not participate in the 1986 ILE Program.

CAMPUS RETENTION OF ILE AND ILE-ELIGIBLE STUDENTS: 1985 ILE

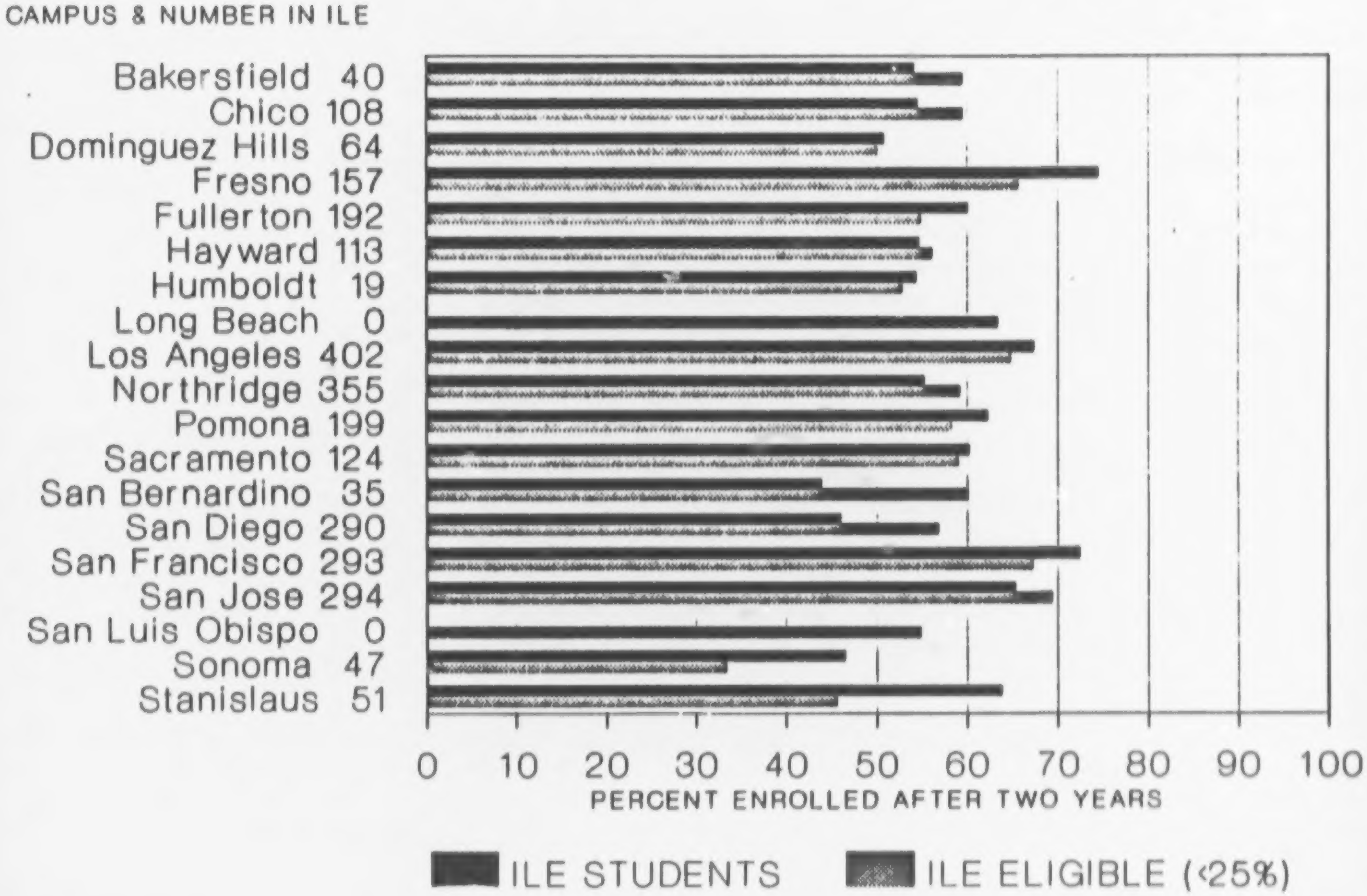


FIGURE 4.13

CAMPUS RETENTION OF ILE AND ILE-ELIGIBLE STUDENTS: 1986 ILE

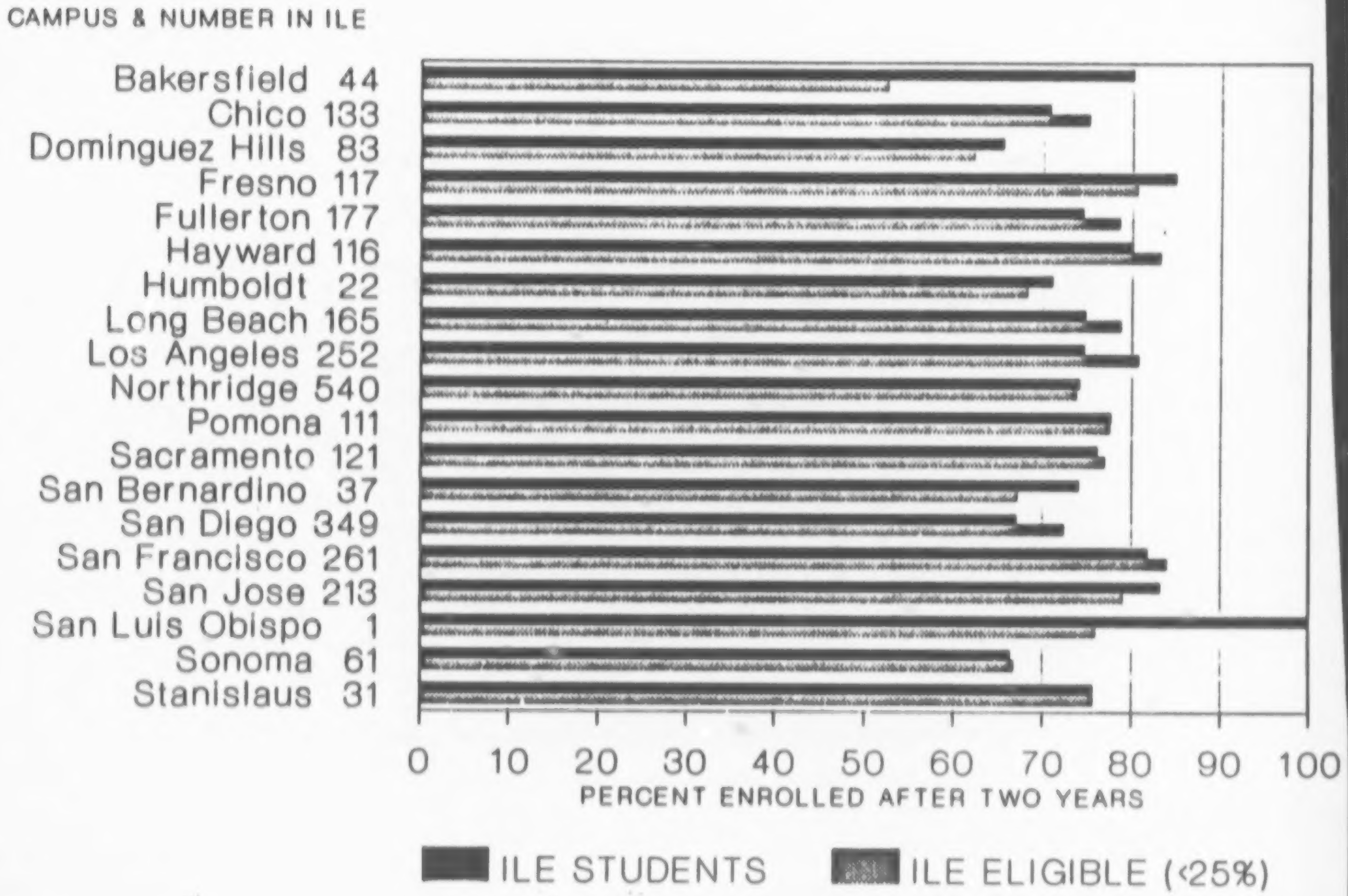


FIGURE 4.14

consistently lower retention rates were Chico, Long Beach, Los Angeles, and San Diego.

Retention by ELM and EPT performance. As with the Summer Bridge sample, retention of ILE students was examined in relation to entry examination performance. Table 4.5 shows two-year retention rates for 1985 ILE and comparison groups broken down by ELM and EPT scores. The first three score categories for each exam represent the lowest quartile for that exam, the ILE-eligibility criterion.

Retention rates for ILE students by ELM score ranged from over 45% to nearly 75%, a difference of 28.7 percentage points. These retention rate increased in direct proportion to ELM score. Rates for ILE students by EPT score had a narrower range, from 54.0% to 65.8%, a difference of only 11.8 percentage points. In contrast to ELM, students in the lowest score band had the highest retention rate, 65.8%.

Comparison of retention rates for ILE students with those in the ILE-eligible group indicates that ILE provides an advantage for some students, particularly in English. Retention rate differences by score category on ELM, for example, show a slight difference in favor of the comparison group on 1-15 and 22-25, but a strong advantage for ILE in the 16-21 band. For EPT, the ILE advantage seems stronger; retention rates for ILE students in both the 120-126 and 136-141 categories were about five percentage points higher than for the comparison group.

Data for the 1986 ILE and comparison group (Table 4.6) supports these findings. Retention rates increase with ELM score, while the rate by EPT shows a downward trend. These findings are also consistent with those for the Summer Bridge sample, and support the idea that the enrollment of limited-English-proficient immigrant Asian and Hispanic students in ILE results in higher retention rates in the lower EPT score categories.

Data presented earlier on ILE retention were aggregated by campus, ethnic group, or by admission basis, and were largely inconclusive. Retention by ethnic group across the ILE and ILE-eligible categories, for instance, varied widely. However, when students were separated by math and English skill level, then indications of program impact began to emerge.

Table 4.7 displays crosstabluations of two-year retention rates by ELM and EPT score bands for students scoring in the lowest quartile on both exams. These data provide further support for the notion suggested in connection with the Summer Bridge analysis that such students are most at risk of dropping out. These ILE sutudents' retention rates do appear to be significantly lower than for ILE students overall. Also consistent with the Summer Bridge results is the fact that students with low ELM scores also scored low on the EPT. Of the 86 students who scored in the 1-15 band for ELM, 67 (77.9%) also scored in the lowest quartile on EPT. In contrast, of the 181 scoring in the lowest category on EPT, only 35 (19.3%) were in the lowest quartile on ELM.

Table 4.5

1985 Two-Year Retention by ILE Comparison Groups and ELM & EPT Score Categories

ELM Score Categories

	1-15		16-21		22-25		26-32		33-43		44 +		TOTAL	
ILE Comparison Group	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ILE	86	45.3	275	56.7	244	55.5	242	61.3	324	67.1	359	74.0	1530	61.7
ILE Eligible (< 25%)	50	46.7	207	51.4	324	57.8	135	54.4	224	66.5	238	70.2	1178	59.0
ILE Marginal (25-35%)	0		0		0		500	61.5	202	66.4	151	71.2	853	64.2

EPT Score Categories

	120-126		127-135		136-141		142-145		146-150		151 +		TOTAL	
ILE Comparison Group	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ILE	181	65.8	522	64.4	586	65.8	150	55.6	163	59.9	95	54.0	1697	63.0
ILE Eligible (< 25%)	100	61.0	436	65.6	487	60.3	101	53.2	132	59.2	136	59.6	1392	61.1
ILE Marginal (25-35%)	0		0		0		661	67.4	138	64.8	170	61.4	969	65.9

Table 4.6

1986 One-Year Retention by ILE Comparison Groups and ELM & EPT Score Categories

ELM Score Categories

ILE Comparison Group	1-15		16-21		22-25		26-32		33-43		44 +		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ILE	87	66.4	274	71.9	273	78.2	277	80.1	361	79.3	366	85.1	1638	78.3
ILE Eligible (< 25%)	86	68.3	314	68.7	396	72.0	268	74.0	449	77.4	540	86.0	2053	76.0
ILE Marginal (25-35%)	0		0		0		575	74.4	315	77.4	250	83.6	1140	77.1

EPT Score Categories

ILE Comparison Group	120-126		127-135		136-141		142-145		146-150		151 +		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ILE	241	84.3	558	78.5	588	79.9	139	76.0	139	72.8	94	79.7	1759	79.1
ILE Eligible (< 25%)	242	83.4	757	79.3	971	78.1	118	67.4	171	70.7	143	70.8	2402	77.3
ILE Marginal (25-35%)	0		0		0		981	78.3	143	76.1	163	75.1	1287	77.6

Table 4.7

1985 ILE Two-Year Retention:
Crosstabulations of ELM & EPT Scores

ELM Score

	1-15		16-21		22-25		TOTAL	
EPT Score	N	%	N	%	N	%	N	%
120-126	12	36.4	13	39.4	10	50.0	35	40.7
127-135	38	45.8	71	55.9	52	54.2	161	52.6
136-141	17	51.5	63	52.1	69	65.1	149	57.3
TOTAL	67	45.0	147	52.3	131	59.0	345	52.9

Thus ELM (but not EPT) could be a reliable predictor of retention. Retention rates increase in proportion to ELM scores, and students scoring lowest on ELM very likely have weak English skills as well.

Table 4.8, which shows comparable data for the 1986 ILE cohort, generally confirms these findings. For students who scored in the bottom quartile on both the ELM and EPT, retention rates are, in general, lower than those for other students. In addition, over 80% of students who scored from 1-15 on ELM also had low scores on EPT, while less than 25% of the lowest EPT scorers were also low on ELM.

Summary of ILE retention. In this section, retention rates of ILE students were looked at along several dimensions, by campus and admission basis, by admission basis and ethnicity, for underrepresented minority students across campuses, and by ELM and EPT test scores. In several ways, retention rates were compared to those of comparision groups of students. These analyses revealed the following.

First, systemwide, there appears to be no clear-cut advantage to participation in ILE. Retention rates of ILE students were found to be no higher than those of ILE-eligible students, either in the same year, or from 1984. The 1984 cohort, however, included a much higher percentage of Asian students (43.4% to 33.9%), who have consistently higher rates of retention. ILE appeared to be most effective with special admit students.

Second, there was wide variation in the retention of ILE students across campuses. Those campus programs with consistently high rates of retention across several dimensions were Fresno, San Francisco, San Jose, and Stanislaus. Campuses showing the least success were Chico, San Bernardino, and San Diego.

Third, ILE was more successful with some ethnic groups than others. In general, the highest retention rates were achieved by Asian/Pacific Islanders, Filipinos, and Other Hispanics. Two-year retention rates for these students were above 60%, regardess of admission basis. Special admit Mexican American students also had comparatively high rates; and special admits from all four ethnic groups had retention rates above the system average.

The ILE program was least successful with Black students; their retention rates were the lowest overall and by admission basis. Each of these is far below any recent system figures. Barely half were retained for two years, while the system rate was over 65%.

Compared to ILE-eligible cohorts, there appeared to be no consistent pattern of success with retention across the ILE and ILE-eligible groups. ILE achieved higher retention rates with regularly admitted Blacks, Mexican-Americans, and Filipinos; retention of other regular admits was roughly the same. Among special admits, ILE retained Other Hispanic and White students at a higher rate, but was less successful with Blacks, Mexican-Americans, Asian/Pacific Islanders, and Filipinos.

Table 4.8

1986 ILE One-Year Retention: Crosstabulations of ELM & EPT Scores

ELM Score

	1-15		16-21		22-25		TOTAL	
EPT Score	N	%	N	%	N	%	N	%
120-126	16	72.7	24	66.7	14	82.4	54	72.0
127-135	33	68.8	80	66.7	62	84.9	175	72.6
136-141	22	59.5	71	73.2	53	74.6	146	71.2
TOTAL	71	66.4	175	69.2	129	80.1	375	72.0

Despite the poor retention of Black students, ILE appeared to be fairly successful in retaining underrepresented minority students overall, particularly on some campuses. The two-year rate of retention for ILE was somewhat greater than for ILE-eligible students, and one-year rates were comparable. Fresno, San Francisco, and Stanislaus still enrolled more than 65% of underrepresented minoirty students after two years.

We also examined the relationship between students' ELM and EPT scores and retention. As with the Summer Bridge analysis, retention increased in proportion to ELM scores, but not EPT. Retention rates for ELM also covered a much broader range than those for EPT, falling well below 50% for two years. By contrast, ILE students scoring in the lowest score category on the EPT actually had higher retention than students in the higher score bands. Once again, this result could be accounted for by limited-English-proficient immigrant students, particularly Asians with good math skills, who would be expected to score poorly on the EPT, but not the ELM.

A key feature in this analysis was the separation of students by math and English skill levels. By so doing, an advantage for ILE students began to show. ILE appeared to be most effective in retaining students with low English scores. When retention rates by score category were compared with those of ILE-eligible students, the greatest differences were found among students with low EPT scores.

An analysis was also made of retention of ILE students who scored in the lowest quartile on both the ELM and EPT. This confirmed the finding for Summer Bridge that these students are indeed the most at risk of discontinuing enrollment. In addition, students with low ELM scores more often had low EPT scores as well.

A case was thus made for ELM performance as a predictor of student retention. Not only did retention rates increase in direct propotion to ELM scores, but the lowest ELM scores are frequently coupled with poor EPT scores.

Adjustment to University Life

Prior research shows that several factors associated with students' adjustment to university life contribute to their successful retention (Pascarella & Terenzini, 1980). Building upon this research and taking into consideration the specific goals of Summer Bridge, the FWL evaluation team developed a Summer Bridge Student Survey (Appendix C).

The Summer Bridge Student Survey was administered in ILE classes in spring of both 1987 and 1988. For this report, however, the discussion is limited to the 1988 administration, because it reflected refinements in the design and analysis of the survey. Prior piloting on two campuses and the administration in 1987 indicated that students would require no more than 10-15 minutes to complete the form. Therefore, with the cooperation of ILE directors and their staffs, FWL mailed copies of the survey and machine-readable NCS forms to each campus. ILE instructors distributed surveys and answer sheets in their classes. Once all classes had been surveyed, ILE directors returned the completed forms to FWL, where students were matched with existing data files to determine participation in Summer Bridge, ILE, or both. The only exception to this administration process was San Luis Obispo, where because there was no ILE program, Summer Bridge students were administered the survey separately.

The decision to have students complete the survey in ILE classes was based upon the assumptions that an in-class administration would ensure a high return rate, and that substantial numbers of Summer Bridge students would enter ILE. Both assumptions proved to be correct. Over 3000 students were surveyed in 1988; of these, 459 Summer Bridge students, over one-fifth of the 1987 Summer Bridge cohort, completed the survey (Table 4.9). This strategy also provided samples of students who could serve as comparisons for the Summer Bridge group. Out of a total of 3108 students surveyed, 119 had participated in Summer Bridge alone, and an additional 350 had enrolled in both Summer Bridge and ILE. In addition, 680 ILE only students and 1969 students who had participated in neither program were also surveyed.

The neither group appears in the sample for at least four reasons. First, several campuses merge ILE with regular remedial classes in the spring term. This is true, for example, at Pomona, Sacramento, and Northridge. Second, in accordance with ILE regulations, when fewer than 12 ILE-eligible students were available for a class, other students might be admitted to fill the section. Third, findings from the FWL site visits indicated that, in some cases, students who had not met the criterion for ILE were nevertheless admitted to ILE classes. Fourth, the data set against which survey respondents were matched did not include students enrolling in ILE for the first time in the spring.

Such caveats need not be raised about students enrolled in Summer Bridge; however, there is some question about the distinction between the Summer Bridge and SB-ILE groups. The Summer Bridge only group is not only comparatively small but also skewed in favor of the San Luis Obispo and Fresno campuses, which together account for nearly 65% of the students in that category. A decision was thus made to combine Summer Bridge and Summer Bridge-ILE in most of the following discussions on survey results.

One further point should be made about the ILE comparison group. Performance of ILE students on this survey does not necessarily represent a measure of the effectiveness of that program. Adjustment, as defined here, is not a specific goal of the Intensive Learning Experience program; rather, the goal of that program is to improve students' academic performance. Certain items, however, are directly relevant to ILE, such as those having to do with academic integration, course satisfaction, and academic confidence.

Table 4.9 also displays numbers of students sampled at each campus. As expected, campuses with a relatively large proportion of responses in the "neither" column merged ILE students into other remedial classes. At Pomona, for example, over 90% of the surveyed students failed to appear on either Summer Bridge or ILE fall rosters.

Table 4.9

1987-88 Summer Bridge Survey Sample by Campus and Program

Campus	Program				
	Summer Bridge	ILE	SB-ILE	Neither	Total
BAKERSFIELD	0	11	15	8	34
	0.0%	32.4%	44.1%	23.5%	1.1%
CHICO	0	51	39	29	119
	0.0	42.9	32.8	24.4	3.8
DOMINGUEZ HILLS	0	19	14	19	52
	0.0	36.5	26.9	36.5	1.7
FRESNO	23	14	17	207	261
	8.8	5.4	6.5	79.3	8.4
FULLERTON	6	34	27	67	134
	4.5	25.4	20.1	50.0	4.3
HAYWARD	4	60	37	54	155
	2.6	33.7	23.9	34.8	5.0
HUMBOLDT	3	4	16	59	82
	3.7	4.9	19.5	72.0	2.6
LONG BEACH	6	18	4	55	83
	7.2	21.7	4.8	66.3	2.7
LOS ANGELES	2	31	24	79	136
	1.5	22.8	17.6	58.1	4.4
NORTHRIDGE	2	64	18	87	171
	1.2	37.4	10.5	50.9	5.5
POMONA	8	28	12	528	576
	1.4	4.9	2.1	91.7	18.5
SACRAMENTO	0	71	25	261	357
	0.0	19.9	7.0	73.1	11.5
SAN BERNARDINO	3	6	0	42	51
	5.9	11.8	0.0	82.4	1.6
SAN DIEGO	3	27	21	157	208
	1.4	13.0	10.1	75.5	6.7
SAN FRANCISCO	1	125	32	64	222
	0.5	56.3	14.4	28.8	7.1
SAN JOSE	2	95	18	145	260
	0.8	36.5	6.9	55.8	8.4
SAN LUIS OBISPO	54	0	0	2	56
	96.4	0.0	0.0	3.6	1.8
SONOMA	1	19	11	89	120
	0.8	15.8	9.2	74.2	3.9
STANISLAUS	1	3	10	17	31
	3.2	9.7	32.3	54.8	1.0
TOTAL	119	680	340	1969	3108
% OF TOTAL	3.8	21.9	10.9	63.4	100.0

Students' First Language

Since the pool of students from which Summer Bridge and ILE select participants are increasingly made up of speakers of Englsh as a second language, the Summer Bridge Survey included one item which asked students to identify their first language. Results are shown on Table 4.10. Nearly 50% were native English speakers; and those having Spanish as a first language accounted for 15.2%. Asian languages comprised the second largest group behind English. Chinese, Vietnamese, and Other Asian languages totaled 22.7%.

The relative proportions of languages within each program group varied. Summer Bridge students were more often native Spanish speakers (31.9% for Summer Bridge Only and 32.6% for Summer Bridge-ILE), which is consistent with the student selection goals of the program. In the Summer Bridge-ILE group, native English speakers accounted for less than 40% of the total. Among those students who enrolled in only ILE, Asian languages were more strongly represented (37.0%). The figures for native English and Spanish were 40.3% and 9.4% respectively.

Results

On the survey, students were instructed to select a response on a 5-point Likert scale. A copy of the survey form appears in Appendix C. For most of the items, the choices ranged from "strongly agree" to "strongly disagree."

Table 4.11 presents responses to items 4-39 for program groups. (The first three items concerned program identification.) In the column labeled "Response," the percent responding as indicated are combined. For example, 91.6% of Summer Bridge students answered either "strongly agree" or "agree" to question 17.

In general, the survey results show that Summer Bridge students, whether part of ILE or not, responded in ways associated with adjustment and retention. As suggested above, less favorable responses by ILE students do not point toward a weakness of that program, and suggest only that students not having the advantage of Summer Bridge may adjust more slowly to university life.

Items have been grouped into seven areas: background, social integration, academic integration, institutional integration, interactions with faculty, and institutional commitment. These broad areas has been shown to be strongly associated with adjustment to university life and retention (Tinto, 1975; Pascarella and Terenzini, 1980).

Background. More Summer Bridge students than non-Summer Bridge students reported having difficulty financing their education, but fewer worked half-time or more. More Summer Bridge students live on campus (perhaps a function of oversampling at San Luis Obispo, a largely residential campus). ILE students expressed less confidence in their English proficiency, which reflects the high enrollments of Asian and Hispanic students in the English component of that program.

Table 4.10

1987-88 Summer Bridge Survey Sample by Native Language

Program	English	Spanish	Chinese	Viet-namese	Other Asian	Other	No Reply	Total
SB	53	38	1	3	10	2	12	119
Row %	44.5	31.9	0.8	2.5	8.4	1.7	10.1	3.8
ILE	274	64	118	59	74	26	65	680
Row %	40.3	9.4	17.4	8.7	10.9	3.8	9.6	21.9
SB-ILE	122	111	13	15	21	5	53	340
Row %	35.9	32.6	3.8	4.4	6.2	1.5	15.6	10.9
Neither	1025	260	146	81	165	73	219	1969
Row %	52.1	13.2	7.4	4.1	8.4	3.7	11.1	63.4
Total	1474	473	278	158	270	106	349	3108
Column %	47.4	15.2	8.9	5.1	8.7	3.4	11.2	100.0

Table 4.11

1987-88 Summer Bridge Student Survey Results: Percent Responding by Item

ADJUSTMENT DIMENSIONS	ITEM	RESPONSE	STUDENT GROUP			
			SB	IIE	SB-IIE	NEITHER
Background						
17.	I speak and understand English very well.	Strongly agree + Agree	91.6	79.1	82.9	84.8
18.	I am having difficulty financing my college education.	Strongly agree + Agree	49.6	42.2	50.0	44.1
37.	Where do you live?	On campus	53.8	15.0	27.1	14.8
38.	How many hours per week are you employed?	20 or more	10.9	23.0	19.4	32.1
39.	How many years have you lived in the United States?	5 or less	9.2	14.5	12.1	12.6
Social Integration						
12.	I am satisfied with the quality of friendships I have made at this university.	Strongly agree + Agree	82.3	70.2	80.3	71.0
28.	What student club(s) or organization(s) have you been in?	None	48.7	72.5	61.8	71.0
29.	What student club(s) or organization(s) have you been involved in? (Note: Choices are different)	None	39.5	64.0	49.1	59.3
30.	How many hours per week (on average) do you spend in extracurricular activities (such as clubs, organizations, athletics, or recreational activities)?	4 or more	31.1	28.7	24.1	31.3
Academic Integration						
10.	My General Education classes this term are too difficult.	Strongly agree + Agree	4.2	22.6	18.5	16.4
23.	What do you think your GPA will be when you graduate?	3.1 to 4.0	63.1	57.9	55.3	50.6
24.	How many times per week do you meet with other students to study?	3 or more	20.1	15.6	21.8	12.5
25.	How many hours per day (on average) do you study outside of class?	3 or more	63.8	54.5	53.8	49.8
35.	For all of your courses, how many class sessions did you miss last term?	7 or more	11.0	12.7	15.0	13.9
Institutional Integration						
31.	How many times last term did you use the Learning Assistance or Tutorial centers on campus?	Never or once	52.9	47.2	41.3	63.6
32.	How many times last term did you use the services of the Educational Opportunity Program (EOP)?	Never or once	48.8	60.6	25.6	74.9
33.	How many times last term did you use student counselling services other than EOP, e.g., Academic Advising?	Never or once	67.2	74.5	66.2	74.1
34.	How many times last term did you use the library?	4 or more	76.4	63.9	66.2	64.6

Table 4.11

(continued)

ADJUSTMENT DIMENSIONS	ITEM	RESPONSE	STUDENT GROUP			
			SB	ILE	SB-ILE	NEITHER
Interaction with Faculty						
19.	My contacts with faculty in class or in tutorials have had a positive influence on my personal life.	Strongly agree + Agree	51.2	38.8	41.7	41.7
20.	My contacts with faculty in class or in tutorials have had a positive influence on my academic growth.	Strongly agree + Agree	69.8	57.1	61.7	64.6
21.	My contacts with faculty outside of class have had a positive influence on my personal life.	Strongly agree + Agree	42.0	28.2	34.7	28.6
22.	My contacts with faculty outside of class have had a positive influence on my academic growth.	Strongly agree	47.9	34.3	44.1	38.7
26.	How many times did you meet with faculty outside of class last term?	Never or once	21.0	39.0	30.9	44.5
27.	For what reasons did you usually meet with faculty outside of class last term?	Both social and academic	31.9	18.7	30.6	18.5
Institutional Commitment						
11.	Overall, I enjoy the classes I am taking this term.	Strongly agree + Agree	75.6	68.6	74.7	72.3
13.	I am confident that I will graduate from college.	Strongly agree + Agree	91.6	85.0	87.9	89.3
14.	I made the right decision in coming to this university.	Strongly agree + Agree	83.2	74.1	79.1	76.9
15.	Overall, I am satisfied with the quality of teaching at this university.	Strongly agree + Agree	74.8	71.2	72.9	63.7
16.	It is important for me to graduate from college.	Strongly agree + Agree	95.8	95.3	93.8	94.8
36.	What are your plans for your education?	Graduate from this university	79.8	76.7	69.8	75.6
Course Satisfaction and Academic Confidence						
4.	This class is too difficult.	Strongly agree + Agree	1.6	6.7	5.9	7.9
5.	I am satisfied with the teaching in this class.	Strongly agree + Agree	63.0	80.6	77.0	80.1
6.	I am receiving much needed help in English, reading, and writing.	Strongly agree + Agree	44.5	58.0	60.6	53.1
7.	I am receiving much needed help in math skills.	Strongly agree + Agree	32.8	33.5	44.7	41.5
8.	I am confident that I will do very well in my baccalaureate English course.	Strongly agree + Agree	64.7	80.3	60.6	66.0
9.	I am confident that I will do very well in my baccalaureate (freshman) math course.	Strongly agree + Agree	63.0	80.7	54.1	49.4

Social integration. Summer Bridge students appeared to be more satisfied with the friendships they had made at college. Indeed, a number of activities within Summer Bridge are directed toward enabling students to form lasting friendships with other students. Note also that fewer Summer Bridge students reported having no involvement in various social clubs and organizations.

Academic integration. Summer Bridge students tended to study more, to have developed study groups, and to be confident about their academic success (GPA). Each of these is an explicit goal of the program, and topics such as time management, the formation of study groups, and building a positive attitude toward academics are part of most Summer Bridge programs. A smaller percentage of students in the neither category reported studying outside of class.

Institutional integration. Summer Bridge students made use of various campus services more frequently than their peers. This was especially true for EOP, but also for the Learning Assistance and counseling services. The orientation component of most Summer Bridge programs includes introductions to various campus facilities. Roughly two-thirds of all students reported using the library 4 or more times during the last term.

Interactions with faculty. Contacts with faculty in classes did not appear to have a greater influence on one group of respondents or another. However, those contacts outside of class had a significantly greater impact on both the personal and academic life of Summer Bridge students; these students also met with faculty outside of class more often and for both academic and social reasons, evidence that they had begun to develop more informal relationships with faculty.

Institutional commitment. Summer Bridge students were somewhat more pleased with their classes and more satisfied with their choice of a university, and with the quality of teaching than other students in the survey. These results suggest that the extensive overview of the university provided by Summer Bridge develops a sense of belonging in the Summer Bridge students. By contrast, however, fewer Summer Bridge students expected to graduate from their university.

Course satisfaction and academic confidence. Very few students in any group felt that the ILE course was too difficult, and only those in Summer Bridge expressed dissatisfaction with the teaching. ILE students reported more satisfaction in the help they received in English and math, but the percentage was less for math than English. For all groups, between half and two-thirds of the students were confident that they would do well in baccalaureate English and math courses; but, once again, fewer students expressed confidence in math than in English.

Summary

The Summer Bridge Student Survey was administered to over 3000 students. Over 450 had participated in Summer Bridge (Summer Bridge only and Summer Bridge-ILE) more than one-fifth of the 1987 enrollment. Over half of the students in the sample reported that they were non-native speakers of English.

Responses of Summer Bridge students indicated clearly that they had experiences and attitudes more closely associated with adjustment to university life than other students in the sample who had not experienced Summer Bridge. They were confident, well-informed about the university, and well-integrated into the campus society. Summer Bridge students gave responses in the direction of greater adjustment and retention within each of the seven topic areas of the survey: Social, academic, and institutional integration; course satisfaction and academic confidence; interactions with faculty; and institutional commitment.

Student Performance and Learning

Both Summer Bridge and ILE programs seek to improve students' performance in thier academic courses. The most important measure of sucess is baccalaureate English and math. Specific goals for the two programs differ, however, since Summer Bridge provides, at most, 4-5 weeks of instruction, whereas ILE may extend two full semesters. Further, the primary objective of ILE is to improve students' performance in English and math, while Summer Bridge also includes adjustment and orientation to university life.

We have approached this issue in two ways. First, we examined the course-taking patterns of Summer Bridge and ILE students. We sought to find out whether students had taken ILE English or math. Next, we examined transcripts to see what other English or math courses they took in these categories: Baccalaureate, remedial, other (advanced), or none at all. Other courses might include advanced writing, literature, or advanced math courses.

Course-taking Patterns

Table 4.12 shows courses taken by 1985 Summer Bridge and ILE students. Two matrices are shown for Summer Bridge. The top matrix displays the types of courses taken by those students who did (yes) or did not (no) take ILE English (or a combination ILE/remedial course). Of the 2208 students still enrolled, roughly half took ILE English, and half did not. From those who did, 55.1% went on to take baccalaureate English; compared to 38.6% of those who did not take ILE. Another 37.1% of the Summer Bridge-ILE students took at least one additional remedial course.

This matrix shows that, compared to their peers who did not enroll in ILE English, more of those Summer Bridge students who took ILE English either enrolled in baccalaureate English, or took a remedial English course. Fewer Summer Bridge-ILE students took no additional English, or enrolled in other (advanced) English courses. This suggests that ILE is effective in directing students into baccalaureate English and appropriate remedial courses, rather than no English at all.

Table 4.12

English and Math Course Taking Patterns for 1985 Summer Bridge and ILE Students

Summer Bridge

Other English Courses Taken

Has Student Taken ILE or ILE/REM English?		None	Remedial	Bacca.	Other	Total
	No	428 (38.5)	251 (22.6)	429 (38.6)	282 (25.4)	1112 (50.4)
	Yes	263 (24.0)	407 (37.1)	604 (55.1)	228 (20.8)	1096 (49.6)
	Total	691 (31.3)	658 (29.8)	1033 (46.8)	510 (23.1)	2208

ILE

Other English Courses Taken

Has Student Taken ILE or ILE/REM English?		None	Remedial	Bacca.	Other	Total
	No	552 (42.6)	86 (6.6)	478 (36.9)	412 (31.8)	1297 (29.2)
	Yes	1058 (33.6)	645 (20.5)	1628 (51.7)	712 (22.6)	3148 (70.8)
	Total	1610 (36.2)	731 (16.4)	2106 (47.4)	1124 (25.3)	4445

Summer Bridge

Other Math Courses Taken

Has Student Taken ILE or ILE/REM Math?		None	Remedial	Bacca.	Other	Total
	No	571 (38.1)	239 (15.9)	471 (31.4)	518 (34.5)	1500 (67.9)
	Yes	435 (61.4)	126 (17.8)	142 (20.1)	79 (11.2)	708 (32.1)
	Total	1006 (45.6)	365 (16.5)	613 (27.8)	597 (27.0)	2208

ILE

Other Math Courses Taken

Has Student Taken ILE or ILE/REM Math?		None	Remedial	Bacca.	Other	Total
	No	897 (37.0)	335 (13.8)	768 (31.7)	888 (36.6)	2426 (54.6)
	Yes	1438 (71.2)	203 (10.1)	355 (17.6)	152 (7.5)	2019 (45.4)
	Total	2335 (52.5)	538 (12.1)	1123 (25.3)	1040 (23.4)	4445

Compare this matrix with that below, which shows patterns of math course-taking among 1985 Summer Bridge students. By contrast, less than one-third (32.1%) enrolled in ILE math, and of these, only 20.1% went on to a baccalaureate math course. In addition, fewer of the Summer Bridge students in ILE took baccalaureate math, and a much greater number took no math at all. Thus, fewer of the Summer Bridge students in ILE took baccalaureate math or other math courses; about the same number took remedial math; and more took no math at all. Thus, for math, ILE appears to be less effective in directing students toward appropriate baccalaureate or remedial courses. A large number leaving ILE took no math at all.

In the two ILE matrices on Table 4.12, some similar patterns emerged. The ILE English matrix shows that greater numbers of ILE English students went on to take baccalaureate English or another remedial English course. Fewer enrolled in advanced English or no English at all. For ILE math, roughly one-sixth of the ILE math students took a baccalaureate math course, whereas about one-third (31.7%) of those not in ILE did so. Only about 10% took a remedial course, and a much higher percentage took no math at all. Therefore, consistent with the Summer Bridge matrices, ILE appears to assist students in the transition to baccalaureat English, but not math.

Data from transcripts of 1986 cohorts (Table 4.13) reveal trends similar to those of the 1985 group, but exceptions did emerge. First, a higher percentage of all Summer Bridge (32.3%) were in baccalaureate English, than were ILE students (22.5%); the same was true for Summer Bridge/ILE students. This might be a reflection of the higher achievement levels of some Summer Bridge students that would enable them to enter baccalaureate courses during their first year.

What can be concluded from these analyses? First, it seems clear that ILE has been effective in enrolling students in baccalaureate English. Whether or not students participated in Summer Bridge, a greater proportion of those in ILE went on to a baccalaureate English course within the first two years. In addition, more ILE students enrolled in other remedial English courses, and fewer took no English at all after ILE.

While enrolling students in these courses is not an explicit goal of the ILE program, it is a positive outcome. Students who enter the university underprepared in English need to address their weaknesses as soon in their academic carreers as possible. To delay taking baccalaureate English, for example, would only place them more at risk.

Students' mathematics course-taking is different. For one thing, a much higher percentage of students appeared to avoid taking math than they did English. Nearly two-thirds of those who enrolled in ILE math took no other math during the first two years; and a comparatively small proportion went on to take a baccalaureate course.

The low enrollment in baccalaureate math could be explained as math avoidance, but it might also be a function of the overcrowded

Table 4.13

English and Math Course Taking Patterns for 1986 Summer Bridge and ILE Students

Summer Bridge

Other English Courses Taken

Has Student Taken ILE or ILE/REM English?	None	Remedial	Bacca.	Other	Total
No	438 (34.4)	322 (25.3)	494 (38.8)	264 (20.7)	1274 (56.1)
Yes	557 (55.9)	202 (20.3)	240 (24.1)	106 (10.6)	996 (43.9)
Total	995 (43.8)	524 (23.1)	734 (32.3)	370 (16.3)	2270

ILE

Other English Courses Taken

Has Student Taken ILE or ILE/REM English?	None	Remedial	Bacca.	Other	Total
No	499 (49.6)	75 (7.4)	304 (30.2)	223 (22.1)	1007 (27.7)
Yes	1578 (60.0)	357 (13.6)	514 (19.5)	335 (12.7)	2630 (72.3)
Total	2077 (57.1)	432 (11.9)	818 (22.5)	558 (15.3)	3637

Summer Bridge

Other Math Courses Taken

Has Student Taken ILE or ILE/REM Math?	None	Remedial	Bacca.	Other	Total
No	615 (36.5)	285 (16.9)	504 (29.9)	522 (31.0)	1685 (74.2)
Yes	458 (78.3)	55 (9.4)	36 (6.2)	45 (7.7)	585 (25.8)
Total	1073 (47.3)	340 (15.0)	540 (23.8)	567 (25.0)	2270

ILE

Other Math Courses Taken

Has Student Taken ILE or ILE/REM Math?	None	Remedial	Bacca.	Other	Total
No	818 (42.2)	252 (13.0)	493 (25.5)	582 (30.0)	1937 (53.3)
Yes	1400 (82.4)	56 (3.3)	130 (7.6)	128 (7.5)	1700 (46.7)
Total	2218 (61.0)	308 (8.5)	623 (17.1)	710 (19.5)	3637

math sections, since many upperclassmen were trying to squeeze in math requirements before graduation.

Grades in Baccalaureate Courses

We also looked at students' performance in baccalaureate English and math. Table 4.14 displays grades in these courses for Summer Bridge students based on whether or not they enrolled in an ILE course. With regard to English, Summer Bridge students who did not take ILE English performed somewhat better than did those in ILE; more received A or B, but fewer received a C grade. Altogether, 72.8% of the "No" students received a grade of C or better, while 63.3% of the Summer Bridge-ILE students did so.

Summer Bridge-only and Summer Bridge-ILE students performed comparably in baccalaureate math courses. While fewer of the Summer Bridge-ILE students received A's, slightly more than half of each group received a grade of C or better (51.4% for Summer Bridge-ILE and 51.5% for Summer Bridge only).

Table 4.15 shows comparable data for the 1985-6 ILE students who have taken baccalaureate English or math. Data in the "Yes" column are for those students enrolled in courses designated as part of the ILE program; those in the "No" column are for students in the ILE data set, but who scored above the 25th percentile on one of the exams (ELM or EPT). In other words, all these students scored in the lower quartile on either the ELM or the EPT; otherwise, they would not be in the data set. Within Summer Bridge, on the other hand, those students not in ILE might not be eligible for ILE at all; they might not be at-risk academically. For baccalaureate math, most certainly included in the "No" category are immigrant students who are limited-English-proficient, but who may have very good math skills.

For ILE students taking baccalaureate English, slightly fewer received grades of A or B, but more received C's. Combined grades of C or better for each group were 80.5% for the "No" group, and 70.0% for ILE. This situation is mirrored for baccalaureate math grades, where relative percentages of A's and B's for ILE students were less, percentage of C's was greater, and overall C-or-better performance was 64.9% for "No" and only 50.0% for ILE.

These baccalaureate grade data tell us several things. First, students in the data set generally received lower grades in baccalaureate math than in baccalaureate English. Within Summer Bridge (Table 4.14), for instance, only half of the students received grades of C or better in math, whether they had taken ILE math or not; in baccalaureate English, more than 70% earned such grades (Table 4.15). This suggests that math skills may be more difficult (or take longer) to remediate; and that more emphasis should be placed on math, both in Summer Bridge and ILE. Consideration might be given, for example, to providing additional support for students while they are enrolled in baccalaureate math.

Table 4.14

1985 Summer Bridge Students' Grades In Baccalaureate English & Math Courses

Baccalaureate English

Did Student take ILE or ILE/REM English?

Grade	No N	No %	Yes N	Yes %
A	36	7.7	35	5.2
B	154	32.8	161	24.0
C	152	32.3	231	34.4
D	21	4.5	39	5.8
F	8	1.7	20	3.0
CR	28	6.0	38	5.7
NC	36	7.7	76	11.3
U	12	2.6	22	3.3
W	23	4.9	50	7.4
Total	470	100.2	672	100.1

Baccalaureate Math

Did Student take ILE or ILE/REM Math?

Grade	No N	No %	Yes N	Yes %
A	51	8.3	7	4.0
B	95	15.5	28	16.2
C	170	27.7	54	31.2
D	82	13.4	27	15.6
F	67	10.9	20	11.6
CR	41	6.7	4	2.3
NC	46	7.5	12	6.9
U	20	3.3	4	2.3
W	42	6.8	17	9.8
Total	614	100.1	173	99.9

Table 4.15

1985 ILE Students' Grades
In Baccalaureate English & Math Courses

Baccalaureate English

Did Student take
ILE or ILE/REM English?

	No		Yes	
Grade	N	%	N	%
A	43	8.5	110	6.3
B	202	40.1	480	27.3
C	161	31.9	639	36.4
D	24	4.8	113	6.4
F	9	1.8	38	2.2
CR	14	2.8	68	3.9
NC	18	3.6	180	10.2
U	11	2.2	35	2.0
W	22	4.4	94	5.4
Total	504	100.1	1757	100.1

Baccalaureate Math

Did Student take
ILE or ILE/REM Math?

	No		Yes	
Grade	N	%	N	%
A	156	16.2	23	5.6
B	216	22.4	62	15.2
C	254	26.3	119	29.2
D	106	11.0	52	12.7
F	83	8.6	55	13.5
CR	29	3.0	16	3.9
NC	28	2.9	31	7.6
U	29	3.0	11	2.7
W	63	6.5	39	9.6
Total	964	99.9	408	100

Only in the ILE comparison group for baccaluareate math did more than 50% earn grades of C or above; this supports the idea that this comparison group might be comprised of Asian students with high math ability. A further indication is that the highest proportion of A's in the Summer Bridge or ILE data was in this baccalaureate math "no" group (16.2%).

A second conclusion is that the baccalaureate English and math grades for ILE students, whether in Summer Bridge or not, were generally poorer than those of the comparison groups. In both the tables, grades in the "No" column were higher than those for ILE, with one exception, where both ILE and comparison students performed poorly (Table 4.14). In fact, no more than 50% of ILE students received grades of C or above in baccalaureate math.

This overall conclusion might be tempered, however, by the fact that in baccalaureate English, at any rate, fully 70% of ILE students earned grades of C or above, and that only about 9% received a grade of D or F. For students who scored in the lowest quartile on the EPT, this would appear to be acceptable performance at this stage in the development of the ILE program.

CHAPTER FIVE

CONCLUSION

This chapter is divided into three sections. In the first two, we summarize the findings of the evaluation and measure them against the six assumptions that underlie each program. These assumptions were spelled out in the Request for Proposals (California State University, 1985) and set forth for testing by the external evaluation. Finally, we offer a series of recommendations based upon the findings of the evaluation.

Assumptions for Summer Bridge

1. Students selected are most in need and best able to profit.

The enrollment data examined in Chapter Two indicate that Summer Bridge programs have indeed selected students who are in great need of such services. More than 70% of the Summer Bridge students in the first three years were underrepresented minorities, five times the systemwide figure; more than 60% were special admits; and more than half scored in the bottom quartile on the ELM or EPT. Most of these students were admitted through the Equal Opportunity Programs, and interview data from site visits indicated that many were first-generation college students receiving financial aid.

Whether the Summer Bridge students selected were the best able to profit from the experience is more difficult to measure. Indirectly, the higher retention rates for Summer Bridge students is an indication that they were able to profit from their experience. In addition, interviews with both students and staff provide some evidence in this area. Students appeared to be very serious about their college lives and dedicated to working hard. More importantly, however, they seemed to recognize that they were fortunate to have the advantage of Summer Bridge. Several pointed out that friends not in Summer Bridge would be at a clear disadvantage in the fall; others said that they were not about to forfeit the opportunity the program had given them.

2. Selection criteria are appropriate.

Enrollment data for Summer Bridge reported above provide support for this assumption as well: A large percentage of Summer Bridge students were underrepresented minorities, special admits, and underprepared students.

An important feature of the selection criteria for Summer Bridge, however, is that they allow campuses a certain amount of flexibility in choosing students for the program. In this way, campuses can tailor their recruitment to match the campus as well as the population from which they draw. For example, the Summer Bridge program at Northridge set aside slots for students who were accepted to the Minority Engineering Program. While these students had to meet the regular admission requirements, they were at risk within their discipline, where minority students are particularly rare.

3. Students' English and mathematics skills will improve as a result of Summer Bridge participation.

The actual effect of Summer Bridge on students' English and mathematics skills is difficult to measure with confidence. First, the treatment time is short (four-six weeks at most), and apparent improvement may not be sustained. Second, Summer Bridge students exhibit a range of abilities; while some students review arithmetic, others take beginning calculus. A third, and related, source of difficulty is that appropriate comparison groups are not available.

There are certain indications, however, that Summer Bridge did have an effect on students' English and mathematics skills. A significant percentage of Summer Bridge students went on to enroll in baccalaureate courses within their first and second years; virtually all the internal evaluations showed gains for students on pre- and post-tests; and students interviewed during site visits also reported having made improvements.

4. Students are better informed and knowledgeable about the university and feel better prepared to meet academic goals.

Summer Bridge students' responses on the Summer Bridge Student Survey indicated clearly that they had experiences and attitudes more closely associated with adjustment to university life than other students in the sample. They were confident, well-informed about the university, and well-integrated into the campus society. Students' responses formed a pattern consistent with greater adjustment and retention in each of the topic areas on the survey: social, academic, and institutional integration; course satisfaction and academic confidence; interactions with faculty; and institutional commitment.

Student interviews confirmed these findings. On every campus, Summer Bridge students showed themselves to be eagerly soaking up their new environment and preparing to take on added responsibilities. Many reported how Summer Bridge had given them an advantage over their peers because they knew their way around campus, and were comfortable with university life, even before the fall term began.

5. Student retention in the second and third years will be greater than that for comparable students.

Two-year retention data for the 1985 Summer Bridge cohort indicated that program students have been retained at a rate higher than those for comparable students systemwide. This was true for the overall cohort, for regular and special admits, and for the targeted ethnic groups.

Nevertheless, a truly adequate measure of program effect in this area will require more longitudinal data based upon the third and fourth year of enrollment. In addition, because the 1985 cohort was the first for the program, the 1986 and 1987 cohorts might be more appropriate groups to examine, since they will have experienced a program that had time to mature.

6. Graduation rates and grade point averages of Summer Bridge students will exceed those of comparable students.

Obviously, the contract period of the evaluation is too short to measure graduation rates. Grade point averages for the first two cohorts were examined and found to be comparable to those of other students. If they are monitored in subsequent years, however, differences might emerge, as students' programs of study become more demanding, and as the long-term effects of the program are realized.

Assumptions for Intensive Learning Experience

1. Students selected for ILE are those most in need of basic skills instruction.

Data presented in Chapter Two provide partial evidence that the Intensive Learning Experience program is serving those students most needing basic skills instruction. For example, in each of the three cohorts, nearly half the ILE students were special admits and more than 40% were underrepresented minority students. On some campuses, more than 300 underrepresented minority students were served. At Dominguez Hills, Bakersfield, Fresno, and San Bernardino, they accounted for 50% of the enrollment.

However, a large number of students who were eligible for ILE program were not served. In 1985-86, ILE captured two-thirds of those who scored in the lowest quartile on ELM or EPT; then in 1986-87 and 1987-88, only 55%. Campuses showed wide variation in the extent to which eligible students were enrolled: In 1986-87, five campuses enrolled more than 70%, while seven others captured less than 50%. The identification and enrollment of ILE students is a complex issue that needs to be examined further.

2. Selection criteria are appropriate.

Some data suggest that the selection criteria for ILE are appropriate. An assumption upon which the selection criteria for ILE are based is that many entering minority students are underprepared, and thus selecting students who score in the bottom quartile on ELM/EPT will result in a disproportionate number of minority students in the program. Data presented in Chapter Two confirm this assumption in that Black, Asian, and Hispanic students are overrepresented in ILE.

A second issue with regard to the selection criteria is whether the 25th percentile cut-off is appropriate. Our analyses indicate that ELM performance is a reasonable predictor of student retention; the retention rates of students marginally exempt on the ELM were slightly higher than those who scored in the bottom quartile. By the same token, however, students with an ELM score below 15 were most at risk of dropping out. They very often had poor EPT scores as well. This might suggest that, with limited resources, ILE should concentrate services on those students who have at least a minimum proficiency in math, e.g., with ELM scores from 16 to 28.

The EPT, on the other hand, does not appear to be a predictor of retention. In fact, marginally exempt students' retention rates were actually below those of students at the bottom of the scale. As was discussed, however, this variation is very likely an artifact of the overenrollment of immigrant Asian students in ILE. Extension of the percentile cut-off upward might be a reasonable approach for ILE English.

3. ILE students' performance on writing skills course exit exams and ELM will exceed that of comparable groups of students.

Evidence on this assumption is comparatively weak. Students' scores on writing skills course exit exams were not available for this evaluation; as a proxy, grades in baccalaureate English courses were analyzed. Further, the evaluation team did not have access to data on subsequent ELM scores until it was too late for them to be analyzed for this report.

Some findings from the evaluation do have relevance to this issue, however. As reported below, for example, ILE students' grades in baccalaureate English, while below those of a comparison group, were within a range to which the program might aspire: Nearly three-quarters of the students received grades of C or above. On the other hand, grades in baccalaureate math were below acceptable limits.

4. Grades in baccalaureate English and/or mathematics courses by ILE students will not be significantly different from those of other students in the same classes.

About 70% of ILE English students received grades of C or above in baccalaureate English, and about 50% did so in baccalaureate math courses. By comparison, over 80% of the baccalaureate English course grades received by a sample of students who had not enrolled in the ILE course were C or above, and nearly 65% of math grades were. While these students were not necessarily in the same classes, they did take the same courses.

Our tentative conclusion on this point is that baccalaureate English performance by ILE students (70% with C or better) might be acceptable at this juncture in the development of the program. Math performance, however, needs improvement. When only half the ILE math students achieve grades of C or better in baccalaureate courses, it is an indication that math preparation must be strengthened further; or that the ILE math eligibility criterion should be revised.

5. Retention of ILE students will improve in the second and third years and exceed that of comparable students.

As was pointed out for Summer Bridge, a conclusive judgement of program effects on retention will require more longitudinal data --

and should also emphasize later cohorts of students, who experienced a more developed program.

In this analysis, rates of retention for ILE students were found to be no higher than those of ILE-eligible students, either in the same year, or from 1984. For special admits, however, ILE appeared to be more effective. The programs on some campuses, furthermore, had consistently high retention rates across several dimensions: Fresno, San Francisco, San Jose, and Stanislaus.

There were indications that ILE provided an advantage for some groups of students. For example, ILE English students had higher rates of retention than did comparison groups. Among ethnic groups, Asian/Pacific Islanders, Filipinos, and Other Hispanics had the highest rates of retention. ILE was also successful in retaining underrepresented minority students overall; their two-year rate was somewhat greater than that of comparable ILE-eligible students, despite uniformly low rates for Black students.

These somewhat equivocal results are consistent with the pattern of wide variation in implementation. As discussed in Chapter Three, the organization, instruction, curriculum, and overall fidelity of implementation of the ILE program differed from campus to campus. These conditions make an overall evaluation of program effects very difficult. This point, coupled with the fact that even two-year retention rates do not adequately measure student persistence, is a further indication that additional tracking and examination by campus will be necessary to answer the question of ILE effects on retention.

6. Graduation rates and grade point averages will exceed those of comparable students.

As with the similar assumption for Summer Bridge, the period for the external evaluation is too short to measure graduation rates. In addition, there were no significant differences between the grade point averages of ILE students and those of comparison groups. Since the ILE program is designed to have a long-term effect, differences might emerge in later years.

In any case, grade point averages are but a crude measure of student achievement, since courses entering into the computation cover the extremes in difficulty. We have concentrated, therefore, on students' achievement in baccalaureate English and math courses, which represent a more direct measure of the ILE program's central objectives. Results of these analyses are summarized above.

Recommendations

In this report, the Summer Bridge and ILE programs have been examined from several perspectives and reviewed against their overall objectives. Regarding program implementation, we reviewed student enrollment and selection criteria, program acceptance and support on campus, administration and staffing, and curriculum and instruction.

We also looked carefully at student outcomes in terms of retention, adjustment to university life, and student learning and performance.

Based upon this multi-faceted examination of both programs, we have developed several recommendations for the system and for campus program implementation.

Recommendations for the Chancellor's Office/CSU System

o Continue to fund both Summer Bridge and ILE programs. Summer Bridge and ILE are meeting with considerable success. Both programs are enrolling large numbers of underrepresented minority students; retention rates for Summer Bridge and ILE students are adequate; and academic achievement in English, at least, appears to be on a par with that of their peers. Summer Bridge students are adjusting better to university life as a result of the program.

Within the context of the changing demographics of California, continuation of these two critical programs becomes even more essential. Of course, there is room for improvement, as the following list of recommendations shows, but campus programs are clearly open to change and innovation. Across the system, the programs have responded to local needs and resources in creative ways. They have not remained static; seeking to improve, directors have continually experimented.

o Develop mechanisms that will allow for information exchange among programs. As Summer Bridge and ILE programs develop on each campus, directors and their staffs explore new and creative ways to provide the services students need. We learned of many of these in our site visits and in the meetings of program directors we sponsored as part of the evaluation. Unfortunately, the opportunities for staff to exchange ideas and compare notes are limited; after each meeting we put together, participants commented on how valuable the experience to meet with their colleagues had been. We therefore recommend that the Chancellor's Office consider ways to facilitate regular communication among Summer Bridge and ILE staff. Whether through occasional meetings, a newletter, an electronic mail system, or some other means, we strongly believe that this cross-fertilization will strengthen the programs and help those involved maintain enthusiasm.

o Continue to build systemwide support for the programs. The Educational Equity Plan and other efforts initiated by the Chancellor's Office have been effective in raising the awareness of campus administrators and faculty regarding minority recruitment and retention. Nevertheless, much remains to be done. On our visits to campuses, we interviewed administrators who had only limited knowledge of such efforts; many knew nothing about Summer Bridge and ILE. In a small way, even our brief encounters helped to inform them and make them realize the importance of these retention programs. We recommend that the Chancellor's Office continue its work in this direction and explore new ways to increase systemwide awareness and concern about this critical issue.

- Reconsider ELM as a selection criterion for ILE. The use of ELM as a selection criterion for ILE creates several problems for campus programs. First, administration times for ELM often make timely identification of eligible students difficult. Second, because students are permitted to retake the ELM, many choose to make repeated attempts at the exam rather then enroll in ILE; ELM workshops are another preferred alternative. Finally, the fact that ELM is not an admission requirement allows students to avoid taking it until their third or fourth year in the university. All these factors combine to make underenrollment a problem for the ILE math component.

ILE is designed to serve underprepared first-time freshmen. If students with inadequate math skills cannot be easily and efficiently identified, then the means for identification needs to be reconsidered, or strict policies must be set to ensure timely compliance.

Recommendations for Campus Program Implementation

- Increase the emphasis on General Education courses in Summer Bridge. Several campuses (e.g., San Luis Obispo, San Diego) have been experimenting with ways to offer students General Education courses during Summer Bridge. This policy has these advantages. First, it allows students to earn academic credit as part of Summer Bridge. Indeed, lack of credit for summer work was about the only consistent complaint we heard from students. Second, students gain experience in "real" courses, rather than only those designed for Summer Bridge. Finally, students get opportunities to meet with regular faculty, many of whom may have had little experience with minorty students before.

- Improve the linkage between Summer Bridge and ILE programs. Coordination between the programs varies widely across campuses; systemwide, over 300 ILE-eligible Summer Bridge students do not continue to the ILE program each year. On some campuses, coordination goes little beyond the formality of proposal sign-off. The implementation of Educational Equity plans might be one way to encourage further cooperation, but at another level, it is ultimately up to the program administrators to recognize the value of coordination and see that it happens.

- Develop campuswide support. Summer Bridge and ILE programs can benefit greatly from increased campus support. Not only does involvement of regular faculty and administrators help to insure continuation of the programs, but can also be of great value to program operation and facilitate smooth implementation. As much as possible, this effort should be broad-based. Academic faculty, administrators, and student services personnel can all make a contribution.

In site visits, we found that among both Summer Bridge and ILE programs, genuine campuswide involvement in planning and implementation was rare. ILE programs on some smaller campuses, such as Sonoma and Bakersfield, however, had set up campuswide committees; and San Diego involved regular faculty in ILE English packages. Examples of real involvement in Summer Bridge were found at San Luis Obispo, where students earned credit for General Education courses taught by regular faculty; and at Northridge, where representatives from all segments of the campus were given assignments on committees that had real decision-making power.

o Strengthen efforts to serve Black students. On all measures of retention, Black students were consistently below the other ethnic groups. As the most seriously underrepresented minority in the CSU system, Blacks may require a redoubled effort from Summer Bridge directors, counselors, and staff. Programs should consider strenthening program features such as support groups and extra tutoring and advising.

Another approach would be to strengthen recruitment efforts so that the students invited to Summer Bridge have the greatest potential to succeed. While Black students are underrepresented in the university, they are overrepresented in the lowest quartiles on the ELM and EPT.

o Strengthen compliance with ILE program guidelines. Site visits revealed that many programs were operating in ways that violated the spirit, if not the letter of ILE program guidelines. In the main, campuses have departed from the original program design in three areas: Identification and enrollment of students, restricted class size, and two-semester ILE courses. On some campuses, identification of ILE-eligible students is haphazard at best. Some classes we visited included more upperclassmen than freshmen. Further, as originally designed, ILE classes are restricted to a teacher-student ratio of 12:1. In practice, however, students were enrolled in much larger classes. A third requirement is that ILE-eligible students be provided two semesters of remediation in either math or English. On a number of campuses, however, second-semester classes enroll both ILE and "non-ILE" students. Campuses attempt to justify this practice by providing additional tutorial help to ILE students.

If ILE is to be fairly evaluated, then careful attention must be given to the identification and enrollment of the students for whom the program is intended. Furthermore, we are convinced by the research on class size that small group instruction can make a significant difference in students' learning. The notion that some students simply require more time to acquire certain skills is also compelling. It is essential, therefore, that these important features of the ILE program not be diluted. We recognize that strict adherence to these guidelines might be more expensive, or might force program directors to make difficult choices about which students to serve.

o Provide job security for part-time instructors. On most campuses, ILE classes were taught by part-time lecturers. While many of them were excellent instructors, this policy has important drawbacks. Instructors receive low pay and no benefits on some campuses, and virtually no assurance of employment from term to term. As a result, many held positions outside the university, and some were clearly frustrated with the situation.

If ILE is to succeed in providing high quality developmental instruction to underprepared students, the program will need to find ways to assure the continuity of experienced instructors.

o Improve the quality of instruction offered in ILE and Summer Bridge. The quality of instruction observed in ILE and Summer Bridge classrooms varied widely across campuses and even within programs. This is not to say that part-time lecturers or graduate students were less skilled than their counterparts on the regular faculty; in fact, some of the most effective instruction observed was in their classes. Underprepared students deserve effective instructors and a curriculum tailored for their needs. For this reason, we recommend that campuses review the quality of instruction offered in every class, and give serious consideration to staff development or other training activities for those whose skills need strengthening.

o Strengthen the advising component in ILE. Academic advising is an important component of the overall ILE design. Many underprepared students, for example, need assistance in selecting courses and measuring their academic background against course requirements. This is especially true during the time they are enrolled in ILE. In some universities, for example, enrollment in regular courses is restricted until writing or math skills have improved. Unless ILE students receive this assistance, which may not be forthcoming from their major department, the challenges of General Education and major courses may force ILE students to drop out. While some campuses, such as Pomona, have taken ILE advising seriously, on many others advising has ranged from perfunctory to non-existent.

o Concentrate on improving the math component in ILE. By every indicator, students in ILE math did more poorly than their ILE-English counterparts. A smaller proportion of students eligible for ILE math actually enrolled; retention rates for math students were lower; a smaller percentage continued to baccalaureate math; and fewer received grades of C or better in baccalaureate math courses. Math deficiencies may be more difficult, or take longer to remediate, and students with poor math skills more often have poor English skills as well. They are therefore most at risk of dropping out. Finally, math ILE programs are at an earlier stage of development.

For all these reasons, program efforts to improve math skills need to be intensified. Options available to campus programs include tightened controls on enrollment, stricter adherence to class size restrictions, increased tutoring, required math laboratories, more direct instruction, or an improved curriculum.

o Provide ESL instruction in ILE for limited-English-proficient students. Even though limited-English-proficient Asian and Hispanic students make up increasingly large proportion of those who score in the lowest quartile of the EPT, ILE programs have, for the most part, not made special provisions for this population. On some campuses, however, special ESL courses or sections have been established; on others, staff with a specialization or expertise in ESL have been recruited. Increased effort should be directed toward meeting the particular needs of these students, and we encourage ILE programs to follow the lead of these campuses.

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APPENDIX A

SUPPORT TABLES FOR CHAPTER TWO

Table A.1

ILE and Summer Bridge Enrollment and Match Rates for 1985-6 and 1986-7

CAMPUS	1985-6						1986-7					
	ILE			Summer Bridge			ILE			Summer Bridge		
	Roster	Match		Roster	Match		Roster	Match		Roster	Match	
		Number	%		Number	%		Number	%		Number	%
Bakersfield	81	74	91.4	111	98	88.3	66	55	83.3	128	110	86.0
Chico	201	198	98.5	134	122	91.0	191	188	98.4	190	151	79.5
Dominguez Hills	139	126	90.6	115	93	80.9	136	127	93.4	100	87	80.6
Fresno	213	213	100.0	239	237	99.2	151	139	92.1	276	271	98.2
Fullerton	347	320	92.2	159	132	83.0	258	238	92.3	201	175	87.1
Hayward	214	207	96.7	108	103	95.4	150	145	96.7	115	102	88.7
Humboldt	36	35	97.2	31	30	96.8	43	33	76.8	72	49	68.1
Long Beach	0	0	--	172	162	94.2	237	222	93.7	178	155	87.1
Los Angeles	615	599	97.4	412	404	90.1	345	338	98.0	247	244	98.8
Northridge	657	643	97.9	234	229	97.9	739	729	98.6	339	312	92.0
Pomona	323	320	99.1	111	105	94.6	148	143	96.6	112	106	94.6
Sacramento	210	206	98.1	57	55	96.5	162	159	98.1	73	70	95.9
San Bernardino	82	80	97.6	26	26	100.0	51	50	98.0	43	37	86.0
San Diego	638	631	98.9	177	168	94.9	529	525	99.2	183	174	95.1
San Francisco	423	405	95.7	88	78	88.6	332	321	96.7	100	90	90.0
San Jose	459	455	99.1	85	78	91.8	277	257	92.8	81	71	87.7
San Luis Obispo	0	0	--	90	90	100.0	0	0	--	84	78	92.9
Sonoma	102	101	99.0	82	79	96.3	99	92	92.9	72	64	88.9
Stanislaus	82	80	97.6	42	41	97.6	43	42	97.7	33	32	97.0
TOTAL	4822	4693	97.3	2473	2330	94.2	3963	3804	96.1	2635	2378	90.2

Table A.2

ILE and Summer Bridge Enrollment and Match Rates for 1987-88

Campus	SB			ILE								
				Math			English			Both		
	Roster	Match		Roster	Match		Roster	Match		Roster	Match	
		Number	%		Number	%		Number	%		Number	%
BAKERSFIELD	119	84	70.6	65	51	78.5	160	107	66.9	33	27	81.8
CHICO	136	123	90.4	26	26	100.0	76	75	98.7	52	52	100.0
DOMINGUEZ HILLS	32	32	100.0	17	17	100.0	59	59	100.0	17	17	100.0
FRESNO	268	265	98.9	28	27	96.4	118	113	95.8	17	16	94.1
FULLERTON	212	174	82.1	65	56	86.2	157	138	87.9	20	20	100.0
HAYWARD	84	80	95.2	39	38	97.4	103	102	99.0	13	12	92.3
HUMBOLDT	36	32	88.9	7	7	100.0	17	16	94.1	8	8	100.0
LONG BEACH	179	162	90.5	92	85	92.4	363	343	94.5	25	24	96.0
LOS ANGELES	336	320	95.2	76	74	97.4	275	271	98.5	13	12	92.3
NORTHRIDGE	260	232	89.2	207	197	95.2	354	337	95.2	74	69	93.2
POMONA	108	100	92.6	20	20	100.0	65	62	95.4	83	72	86.7
SACRAMENTO	67	56	83.6	39	39	100.0	91	89	97.8	37	33	89.2
SAN BERNARDINO	54	49	90.7	10	10	100.0	38	34	89.5	4	4	100.0
SAN DIEGO	221	214	96.8	153	151	98.7	111	111	100.0	127	127	100.0
SAN FRANCISCO	93	85	91.4	67	62	92.5	184	172	93.5	37	35	94.6
SAN JOSE	93	91	97.8	10	10	100.0	261	252	96.6	34	34	100.0
SAN LUIS OBISPO	80	79	98.8	-	-	-	-	-	-	-	-	-
SONOMA	51	44	86.3	38	37	97.4	30	29	96.7	13	13	100.0
STANISLAUS	44	37	84.1	16	14	87.5	18	17	94.4	15	13	86.7
TOTAL	2473	2259	91.3	975	921	94.5	2480	2327	93.8	622	588	94.5

Table A.3
1985 Summer Bridge: Campus by Ethnicity

ETHNICITY

CAMPUS	Native American	Filipino	Black	Mexican American	Other Hispanic	Asian	Pacific Islander	White	All Other	No Response	Decline to State	ROW TOTAL
Bakersfield	1 1.0%	4 4.1%	22 22.4%	37 37.8%	6 6.1%	3 3.1%	0 0.0%	20 20.4%	4 4.1%	0 0.0%	1 1.0%	98 4.2%
Chico	6 4.9	4 3.3	37 30.3	41 33.6	6 4.9	6 4.9	2 1.6	16 13.1	4 3.3	0 0.0	0 0.0	122 5.2
Dominguez Hills	0 0.0	17 18.3	30 32.3	28 30.1	4 4.3	5 5.4	1 1.1	5 5.4	2 2.2	1 1.1	0 0.0	93 4.0
Fresno	7 3.0	2 0.8	40 16.9	153 64.6	5 2.1	18 7.6	0 0.0	11 4.6	1 0.4	0 0.0	0 0.0	237 10.2
Fullerton	0 0.0	3 2.3	30 22.7	45 34.1	8 6.1	27 20.5	0 0.0	16 12.1	1 0.8	2 1.5	0 0.0	132 5.7
Hayward	0 0.0	6 5.8	41 39.8	20 19.4	7 6.8	18 17.5	1 1.0	6 5.8	4 3.9	0 0.0	0 0.0	103 4.4
Humboldt	9 30.0	1 3.3	7 23.3	7 23.3	1 3.3	0 0.0	1 3.3	2 6.7	2 6.7	0 0.0	0 0.0	30 1.3
Long Beach	5 3.1	5 3.1	79 48.8	50 30.9	10 6.2	6 3.7	1 0.6	2 1.2	3 1.9	0 0.0	1 0.6	162 7.0
Los Angeles	3 0.7	17 4.2	47 11.6	130 32.2	31 7.7	106 26.2	0 0.0	13 3.2	3 0.7	48 11.9	6 1.5	404 17.3
Northridge	5 2.2	9 3.9	110 48.0	55 24.0	34 14.8	7 3.1	0 0.0	5 2.2	4 1.7	0 0.0	0 0.0	229 9.8
Pomona	1 1.0	4 3.8	25 23.8	62 59.0	9 8.6	1 1.0	1 1.0	2 1.9	0 0.0	0 0.0	0 0.0	105 4.5
Sacramento	1 1.8	3 5.5	17 30.9	12 21.8	3 5.5	16 29.1	0 0.0	3 5.5	0 0.0	0 0.0	0 0.0	55 2.4
San Bernardino	1 3.8	0 0.0	6 23.1	15 57.7	1 3.8	1 3.8	0 0.0	1 3.8	1 3.8	0 0.0	0 0.0	26 1.1
San Diego	0 0.0	24 14.3	54 32.1	49 29.2	8 4.8	19 11.3	1 0.6	7 4.2	5 3.0	0 0.0	1 0.6	168 7.2
San Francisco	3 3.8	8 10.3	33 42.3	5 6.4	5 6.4	11 14.1	0 0.0	1 1.3	4 5.1	8 10.3	0 0.0	78 3.3
San Jose	1 1.3	2 2.6	23 29.5	24 30.8	3 3.8	22 28.2	0 0.0	1 1.3	1 1.3	0 0.0	1 1.3	78 3.3
San Luis Obispo	3 3.3	11 12.2	13 14.4	29 32.2	10 11.1	9 10.0	2 2.2	12 13.3	0 0.0	0 0.0	1 1.1	90 3.9
Sonoma	2 2.5	0 0.0	24 30.4	11 13.9	5 6.3	1 1.3	0 0.0	34 43.0	0 0.0	0 0.0	2 2.5	79 3.4
Stanislaus	0 0.0	0 0.0	10 24.4	22 53.7	1 2.4	4 9.8	0 0.0	3 7.3	1 2.4	0 0.0	0 0.0	41 1.8
COLUMN TOTAL % OF TOTAL	48 2.1	120 5.2	648 27.8	795 34.1	157 6.7	280 12.0	10 0.4	160 6.9	40 1.7	59 2.5	13 0.6	2330 100.0

Note: Percentages may not equal 100 because of rounding

Table A.4

1986 Summer Bridge: Campus by Ethnicity

ETHNICITY

CAMPUS	Native American	Filipino	Black	Mexican American	Other Hispanic	Asian	Pacific Islander	White	All Other	No Response	Decline to State	ROW TOTAL
Bakersfield	0 0.0%	3 2.7%	22 20.0%	46 41.8%	12 10.9%	8 7.3%	0 0.0%	16 14.5%	3 2.7%	0 0.0%	0 0.0%	110 4.6%
Chico	3 2.0	0 0.0	36 23.8	53 35.1	11 7.3	4 2.6	0 0.0	33 21.9	6 4.0	5 3.3	0 0.0	151 6.3
Dominguez Hills	1 1.1	7 8.0	37 42.5	20 23.0	12 13.8	3 3.4	1 1.1	3 3.4	1 1.1	1 1.1	1 1.1	87 3.7
Fresno	6 2.2	2 0.7	45 16.6	160 59.0	13 4.8	24 8.9	0 0.0	15 5.5	5 1.8	0 0.0	1 0.4	271 11.4
Fullerton	3 1.7	6 3.4	40 22.9	58 33.1	13 7.4	27 15.4	0 0.0	23 13.1	5 2.9	0 0.0	0 0.0	175 7.4
Hayward	1 1.0	4 3.9	41 40.2	23 22.5	4 3.9	21 20.6	1 1.0	4 3.9	1 1.0	0 0.0	2 2.0	102 4.3
Humboldt	14 28.6	0 0.0	24 49.0	4 8.2	2 4.1	3 6.1	0 0.0	1 2.0	1 2.0	0 0.0	0 0.0	49 2.1
Long Beach	0 0.0	10 6.5	64 41.3	52 33.5	13 8.4	7 4.5	2 1.3	5 3.2	2 1.3	0 0.0	0 0.0	155 6.5
Los Angeles	0 0.0	7 2.9	37 15.2	103 42.2	34 13.9	31 12.7	0 0.0	3 1.2	5 2.0	24 9.8	0 0.0	244 10.3
Northridge	2 0.6	11 3.5	135 43.3	95 30.4	49 15.7	6 1.9	2 0.6	7 2.2	4 1.3	0 0.0	1 0.3	312 13.1
Pomona	1 0.9	0 0.0	31 29.2	56 52.8	14 13.2	0 0.0	1 0.9	1 0.9	0 0.0	1 0.9	1 0.0	106 4.5
Sacramento	1 1.4	4 5.7	24 34.3	28 40.0	7 10.0	2 2.9	2 2.9	1 1.4	0 0.0	0 0.0	1 1.4	70 2.9
San Bernadino	0 0.0	0 0.0	10 27.0	17 45.9	5 13.5	3 8.1	0 0.0	2 5.4	0 0.0	0 0.0	0 0.0	37 7.3
San Diego	0 0.0	23 13.2	66 37.9	42 24.1	10 5.7	25 14.4	1 0.6	5 2.9	2 1.1	0 0.0	0 0.0	174 7.3
San Francisco	0 0.0	10 11.1	50 55.6	4 4.4	17 18.9	3 3.3	2 2.2	1 1.1	1 1.1	2 2.2	0 0.0	90 3.8
San Jose	0 0.0	0 0.0	35 49.3	12 16.9	5 7.0	16 22.5	0 0.0	2 2.8	1 1.4	0 0.0	0 0.0	71 3.3
San Luis Obispo	2 2.6	2 2.6	25 32.1	23 29.5	11 14.1	8 10.3	0 0.0	6 7.7	1 1.3	0 0.0	0 0.0	78 3.3
Sonoma	1 1.6	3 4.7	22 34.4	14 21.9	7 10.9	2 3.1	1 1.6	13 20.3	0 0.0	0 0.0	1 1.6	64 2.7
Stanislaus	0 0.0	0 0.0	6 18.8	11 34.4	3 9.4	7 21.9	0 0.0	4 12.5	1 3.1	0 0.0	0 0.0	32 1.3
COLUMN TOTAL % OF TOTAL	35 1.5	92 3.9	750 31.5	821 34.5	242 10.2	200 8.4	13 0.5	145 6.1	39 1.6	33 1.4	8 0.3	2378 100.0

Note: Percentages may not equal 100 because of rounding

Table A.5

1987 Summer Bridge: Campus by Ethnicity

Campus	Nat. Amer.	Black	Mex.-Amer.	Other Hisp.	Asian/ Pacific. Islander	Fil.	White	All Other	Total
BAKERSFIELD	-	19	31	6	5	4	17	2	84
	- %	22.6%	36.9%	7.1%	6.0%	4.8%	20.2%	2.4%	3.7%
CHICO	9	36	35	7	2	2	25	5	123
	7.3	29.3	28.5	5.7	1.6	3.2	20.3	4.1	5.4
DOMINGUEZ HILLS	-	13	7	4	6	-	-	2	32
	-	40.6	21.9	12.5	18.7	-	-	6.3	1.4
FRESNO	3	37	168	13	25	3	7	9	265
	1.1	14.0	63.4	4.9	9.5	1.1	2.6	3.4	11.7
FULLERTON	2	28	65	20	37	6	12	4	174
	1.1	16.1	37.4	11.5	21.3	3.4	6.9	2.3	7.7
HAYWARD	-	37	7	4	28	1	2	1	80
	-	46.3	8.8	5.0	35.0	1.3	2.5	1.3	3.5
HUMBOLDT	4	12	11	1	1	-	1	2	32
	12.5	37.5	34.4	3.1	3.1	-	3.1	6.2	1.4
LONG BEACH	1	64	55	24	6	1	7	4	162
	.6	39.5	34.0	14.8	3.7	.6	4.3	2.5	7.2
LOS ANGELES	-	66	161	52	20	4	8	9	320
	-	20.6	50.3	16.3	60.3	1.3	2.5	2.7	14.2
NORTHRIDGE	2	99	74	40	5	2	6	4	232
	.9	42.7	31.9	17.2	2.2	.9	2.6	1.7	10.3
POMONA	1	39	51	5	-	3	-	1	100
	1.0	39.0	51.0	5.0	-	3.0	-	1.0	4.4
SACRAMENTO	-	14	30	5	4	-	1	2	56
	-	25.0	53.6	8.9	7.1	-	1.8	3.6	2.5
SAN BERNARDINO	1	20	20	4	1	-	1	2	49
	2.0	40.8	40.8	8.2	2.0	-	2.0	4.1	2.2
SAN DIEGO	2	92	75	23	5	12	3	2	214
	.9	43.0	35.0	10.7	2.3	5.6	1.4	1.0	9.5
SAN FRANCISCO	-	32	10	19	11	10	1	2	85
	-	7.6	11.8	22.4	12.9	11.8	1.2	2.4	3.8
SAN JOSE	1	32	22	2	28	1	3	2	91
	1.1	35.2	24.2	2.2	30.8	1.1	3.3	2.2	4.0
SAN LUIS OBISPO	3	14	20	15	6	10	10	1	79
	3.8	17.7	25.3	19.0	7.6	12.7	12.7	1.3	3.5
SONOMA	2	10	15	7	2	2	6	-	44
	4.5	22.7	34.1	15.9	4.5	4.5	13.6	-	1.9
STANISLAUS	-	9	13	3	4	-	5	3	37
	-	24.3	35.1	8.1	10.8	-	13.5	8.1	1.6
COLUMN TOTAL	31	673	870	254	198	61	115	57	2259
% OF TOTAL	1.4	29.8	38.5	11.2	8.7	2.7	5.1	2.6	100.0

Table A.6
1985-6 ILE: Campus by Ethnicity

CAMPUS	ETHNICITY Native American	Filipino	Black	Mexican American	Other Hispanic	Asian	Pacific Islander	White	All Other	No Response	Decline to State	ROW TOTAL
Bakersfield	2 2.7%	5 6.8%	17 23.0%	29 39.2%	2 2.7%	6 8.1%	0 0.0%	9 12.2%	3 4.1%	1 1.4%	0 0.0%	74 1.6%
Chico	6 3.0	4 2.0	29 14.6	34 17.2	5 2.5	7 3.5	2 1.0	107 54.0	4 2.0	0 0.0	0 0.0	198 4.2
Dominguez Hills	1 0.8	12 19.5	54 42.9	22 17.5	8 6.3	19 15.1	0 0.0	8 6.3	1 0.8	0 0.0	1 0.8	126 2.7
Fresno	3 1.4	0 0.0	31 14.6	81 38.0	4 1.9	35 16.4	0 0.0	51 23.9	5 2.3	0 0.0	3 1.4	213 4.5
Fullerton	2 0.6	7 2.2	36 11.3	50 15.6	11 3.4	107 33.4	1 0.3	97 30.3	3 0.9	3 0.9	3 0.9	320 6.8
Hayward	3 1.4	7 3.4	60 29.0	16 7.7	17 8.2	46 22.2	2 1.0	51 24.6	5 2.4	0 0.0	0 0.0	207 0.7
Humboldt	5 14.3	0 0.0	5 14.3	6 17.1	0 0.0	1 2.9	0 0.0	16 45.7	2 5.7	0 0.0	0 0.0	35 0.7
Los Angeles	0 0.0	22 3.7	65 10.9	182 30.4	43 7.2	206 34.4	2 0.3	26 4.3	16 2.7	32 5.3	5 0.8	599 12.8
Northridge	4 0.6	14 2.2	184 28.6	86 13.4	43 6.7	117 18.2	0 0.0	182 28.3	10 1.6	0 0.0	3 0.5	643 13.7
Pomona	4 1.3	8 2.5	32 10.0	88 27.5	22 6.9	113 35.3	1 0.3	46 14.4	4 1.3	1 0.3	1 0.3	320 6.8
Sacramento	0 0.0	3 1.5	36 17.5	24 11.7	5 2.4	32 15.5	1 0.5	91 44.2	8 3.9	1 0.5	5 2.4	206 4.4
San Bernadino	1 1.3	0 0.0	13 16.3	28 35.0	1 1.3	2 2.5	0 0.0	32 40.0	2 2.5	0 0.0	1 1.3	80 1.7
San Diego	6 1.0	44 7.0	133 21.1	139 22.0	32 5.1	63 10.0	3 0.5	185 29.3	14 2.2	0 0.0	12 1.9	631 13.4
San Francisco	2 0.5	27 6.7	61 15.1	14 3.5	19 4.7	185 45.7	3 0.7	56 13.8	8 2.0	25 6.2	5 1.2	405 8.6
San Jose	4 0.9	20 4.4	83 18.2	56 12.3	11 2.4	149 32.7	3 0.7	110 24.2	11 2.4	0 0.0	8 1.8	455 9.7
Sonoma	1 1.0	0 0.0	25 24.8	13 12.9	4 4.0	3 3.0	1 1.0	51 50.5	2 2.0	0 0.0	1 1.0	101 2.2
Stanislaus	1 1.3	0 0.0	9 11.3	20 25.0	2 2.5	6 7.5	0 0.0	37 46.3	5 6.3	0 0.0	0 0.0	80 1.7
COLUMN TOTAL % OF TOTAL	45 1.0	173 3.7	873 18.6	888 18.9	229 4.9	1097 23.4	19 0.4	1155 24.6	103 2.2	63 1.3	48 1.0	4693 100.0

Note: Percentages may not equal 100 because of rounding

Table A.7

1986-7 ILE: Campus by Ethnicity

ETHNICITY

CAMPUS	Native American	Filipino	Black	Mexican American	Other Hispanic	Asian	Pacific Islander	White	All Other	No Response	Decline to State	ROW TOTAL
Bakersfield	0 0.0%	1 1.8%	12 21.8%	27 49.1%	5 9.1%	5 9.1%	0 0.0%	5 9.1%	0 0.0%	0 0.0%	0 0.0%	55 1.4%
Chico	0 0.0	0 0.0	25 13.3	34 18.1	7 3.7	3 1.6	1 0.5	106 56.4	4 2.1	8 4.3	0 0.0	188 4.9
Dominguez Hills	0 0.0	7 5.5	63 49.6	15 11.8	7 5.5	9 7.1	2 1.6	21 16.5	1 0.8	1 0.8	1 0.8	127 3.3
Fresno	4 2.9	1 0.7	10 7.2	51 36.7	3 2.2	35 25.2	1 0.7	28 20.1	4 2.9	0 0.0	2 1.4	139 3.7
Fullerton	3 1.3	5 2.1	39 16.4	35 14.7	14 5.9	69 29.0	1 0.4	67 28.2	4 1.7	1 0.4	0 0.0	238 6.3
Hayward	0 0.0	9 6.2	45 31.0	20 13.8	6 4.1	47 32.4	1 0.7	15 10.3	2 1.4	0 0.0	0 0.0	145 3.8
Humboldt	7 21.2	0 0.0	9 27.3	3 9.1	0 0.0	4 12.1	0 0.0	7 21.2	3 9.1	0 0.0	0 0.0	33 0.9
Long Beach	2 0.9	12 5.4	60 27.0	43 19.4	13 5.9	27 12.2	1 0.5	57 25.7	5 2.3	0 0.0	2 0.9	222 5.8
Los Angeles	2 0.6	12 3.6	39 11.5	85 25.1	29 8.6	98 29.0	0 0.0	19 5.6	7 2.1	46 13.6	1 0.3	338 8.9
Northridge	4 0.5	21 2.9	163 22.4	78 10.7	30 4.1	150 20.6	1 0.1	262 35.9	12 1.6	0 0.0	8 1.1	729 19.2
Pomona	2 1.4	0 0.0	29 20.3	39 27.3	21 14.7	28 19.6	0 0.0	18 12.6	5 3.5	1 0.7	0 0.0	143 3.8
Sacramento	1 0.6	6 3.8	15 9.4	32 20.1	7 4.4	18 11.3	2 1.3	71 44.7	4 2.5	0 0.0	3 1.9	159 3.8
San Bernadino	2 4.0	0 0.0	7 14.0	14 28.0	3 6.0	4 8.0	0 0.0	18 36.0	2 4.0	0 0.0	0 0.0	50 1.3
San Diego	1 0.2	39 7.4	109 20.8	88 16.8	29 5.5	100 19.0	3 0.6	137 26.1	8 1.5	0 0.0	11 2.1	525 13.8
San Francisco	0 0.0	32 10.0	56 17.4	7 2.2	19 5.9	148 46.1	2 0.6	36 11.2	6 1.9	14 4.4	1 0.3	321 8.4
San Jose	3 1.2	16 6.2	44 17.1	21 8.2	9 3.5	109 42.4	0 0.0	46 17.9	7 2.7	0 0.0	2 0.8	257 6.8
San Luis Obispo	0 0.0	0 0.0	0 0.0	0 0.0	1 100.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 0.0
Sonoma	1 1.1	3 3.3	18 19.6	13 14.1	7 7.6	4 4.3	0 0.0	45 48.9	0 0.0	0 0.0	1 1.1	92 2.4
Stanislaus	2 4.8	0 0.0	5 11.9	13 31.0	2 4.8	6 14.3	0 0.0	14 33.3	0 0.0	0 0.0	0 0.0	42 1.1
COLUMN TOTAL % OF TOTAL	34 0.9	164 4.3	748 19.7	618 16.2	212 5.6	864 22.7	15 0.4	972 25.6	74 1.9	71 1.9	32 0.8	3804 100.0

Note: Percentages may not equal 100 because of rounding

Table A.8

1987-8 Intensive Learning Experience: Campus by Ethnicity

Campus	Nat. Amer.	Black	Mex.-Amer.	Other Hisp.	Asian/ Pacific. Islander	Fil.	White	All Other	Total
BAKERSFIELD	- - %	27 14.6%	49 26.5%	9 4.9%	9 4.9%	5 2.7%	77 41.6%	9 4.9%	185 4.8%
CHICO	4 2.6	29 19.0	22 14.4	4 2.6	6 4.0	1 .7	82 53.6	5 3.3	153 4.0
DOMINGUEZ HILLS	1 1.1	31 33.3	16 17.2	13 14.0	21 22.6	1 1.1	6 6.5	3 4.3	93 2.4
FRESNO	2 1.3	14 9.0	60 38.5	6 3.8	38 24.4	2 1.3	27 17.3	7 4.4	156 4.1
FULLERTON	1 .5	23 10.7	32 15.0	16 7.5	90 42.0	6 2.8	39 18.2	7 3.2	214 5.6
HAYWARD	2 1.3	37 24.3	9 5.9	5 3.3	62 40.8	10 6.6	25 16.4	2 1.4	152 4.0
HUMBOLDT	3 9.7	10 32.3	7 22.6	1 3.2	- -	1 3.2	8 25.8	1 3.2	31 .8
LONG BEACH	3 .7	136 30.1	93 20.6	29 6.4	62 13.8	13 2.9	100 22.1	16 3.5	452 11.8
LOS ANGELES	1 .3	38 10.6	84 23.5	42 11.8	133 37.3	21 5.9	17 4.8	21 5.9	357 9.3
NORTHRIDGE	6 1.0	117 19.4	104 17.2	60 10.0	110 18.3	15 2.5	175 29.0	16 2.7	603 15.7
POMONA	1 .6	19 12.3	40 26.0	8 5.2	53 34.4	1 .6	28 18.2	4 2.5	154 4.0
SACRAMENTO	2 1.2	23 14.3	47 29.2	6 3.7	26 16.1	2 1.2	47 29.2	8 4.9	161 4.2
SAN BERNARDINO	- -	8 16.7	10 20.8	2 4.2	5 10.4	2 4.2	20 41.7	1 2.1	48 1.3
SAN DIEGO	4 1.0	147 37.8	87 22.4	19 4.9	40 10.3	32 8.2	52 13.4	8 2.1	389 10.1
SAN FRANCISCO	1 .4	29 10.8	12 4.5	25 9.3	123 45.7	31 11.5	36 13.4	12 4.5	269 7.0
SAN JOSE	3 1.0	46 15.5	39 13.2	7 2.4	145 49.0	11 3.7	39 13.2	6 2.1	296 7.7
SONOMA	2 2.5	5 6.3	9 11.4	6 7.6	4 5.1	2 2.5	48 60.8	3 3.8	79 2.1
STANISLAUS	1 2.3	8 18.2	11 25.0	4 9.1	5 11.4	- -	12 27.3	3 6.8	44 1.1
COLUMN TOTAL % OF TOTAL	37 1.0	747 19.5	731 19.1	262 6.8	932 23.8	156 4.1	838 21.8	133 1.6	3836 100.0

APPENDIX B

SUPPORT TABLES FOR CHAPTER FOUR

Table B.1

1985 Summer Bridge Two-Year Retention by Campus and Admission Basis

	Alternate		Regular		Special		Total	
Campus	N	%	N	%	N	%	N	%
Bakersfield	4	100.0	28	65.1	29	56.9	61	62.2
Chico	2	100.0	26	74.3	32	37.6	60	49.2
Dominguez Hills	2	100.0	34	77.3	27	57.4	63	67.7
Fresno	1	100.0	68	77.3	106	72.1	175	74.2
Fullerton	0		11	61.1	60	52.6	71	53.8
Hayward	0		4	80.0	56	57.1	60	58.3
Humboldt	0		4	100.0	15	57.7	19	63.3
Long Beach	1	100.0	23	71.9	71	55.0	95	58.6
Los Angeles	22	66.7	144	69.9	103	63.2	269	66.9
Northridge	0		60	67.4	68	48.6	128	55.9
Pomona	0		29	58.0	26	47.3	55	52.4
Sacramento	0		19	50.0	5	29.4	24	43.6
San Bernardino	0		3	60.0	10	47.6	13	50.0
San Diego	0		42	60.0	44	44.9	86	51.2
San Francisco	0		3	100.0	47	62.7	50	64.1
San Jose	0		13	81.3	36	58.1	49	62.8
San Luis Obispo	0		38	63.3	14	46.7	52	57.8
Sonoma	0		13	54.2	21	38.2	34	43.0
Stanislaus	0		4	57.1	19	55.9	23	56.1
TOTAL	32	74.4	566	67.6	789	54.5	1387	59.6

Table B.2

1986 Summer Bridge One-Year Retention by Campus and Admission Basis

Campus	Alternate		Regular		Special		Total	
	N	%	N	%	N	%	N	%
Bakersfield	0	00.0	27	75.0	55	77.5	82	74.5
Chico	7	77.8	33	75.0	63	64.3	103	68.2
Dominguez Hills	4	80.0	22	75.9	23	43.4	49	56.3
Fresno	4	66.7	75	83.3	149	85.1	228	84.1
Fullerton	8	72.7	35	79.5	81	67.5	124	70.9
Hayward	0		0	00.0	78	77.2	78	76.5
Humboldt	0		2	40.0	23	57.5	25	55.6
Long Beach	1	100.0	37	84.1	87	79.8	125	
Los Angeles	12	85.7	81	89.0	115	82.7	208	85.2
Northridge	0	00.0	108	75.5	117	69.6	225	72.1
Pomona	0		44	81.5	36	69.2	80	75.5
Sacramento	6	75.0	30	83.3	20	76.9	56	80.0
San Bernardino	0		6	85.7	23	76.7	29	78.4
San Diego	9	81.8	56	73.7	62	71.3	127	73.0
San Francisco	0		6	85.7	63	75.9	69	76.7
San Jose	0		3	75.0	52	77.6	55	77.5
San Luis Obispo	8	88.9	50	82.0	4	50.0	62	
Sonoma	0		12	80.0	33	67.3	45	70.3
Stanislaus	0		8	100.0	16	66.7	24	75.0
TOTAL	59	75.6	635	79.9	1100	73.3	1794	75.6

Table B.3

1985 Summer Bridge Two-Year Retention by Admission Basis and Ethnicity

Admission Basis	Native American N	Native American %	Black N	Black %	Mexican American N	Mexican American %	Other Hispanic N	Other Hispanic %	Asian/ Pacific Is. N	Asian/ Pacific Is. %	Filipino N	Filipino %	White N	White %	Other/No Response N	Other/No Response %	TOTAL N	TOTAL %
Alternate	0		3	75.0	4	50.0	2	100.0	10	76.9	2	100.0	6	85.7	5	71.4	32	74.4
Regular	13	76.5	85	62.5	199	66.3	45	63.4	107	78.7	54	68.4	39	63.9	24	64.9	566	67.6
Special	15	48.4	241	47.5	275	56.6	55	65.5	94	67.1	28	71.8	44	47.8	37	54.4	789	54.5
TOTAL	28	58.3	329	50.9	478	60.2	102	65.0	211	73.0	84	70.0	89	55.6	66	58.9	1387	59.6

Table B.4

1986 Summer Bridge One-Year Retention by Admission Basis and Ethnicity

Admission Basis	Native American N	Native American %	Black N	Black %	Mexican American N	Mexican American %	Other Hispanic N	Other Hispanic %	Asian/ Pacific Is. N	Asian/ Pacific Is. %	Filipino N	Filipino %	White N	White %	Other/No Response N	Other/No Response %	TOTAL N	TOTAL %
Alternate	1	100.0	14	82.4	23	76.7	4	66.7	9	75.0	1	100.0	5	62.5	2	66.7	59	75.6
Regular	9	75.0	128	74.0	250	81.2	90	84.9	53	79.1	40	88.9	41	71.9	24	88.9	635	79.9
Special	10		391	70.3	374	77.4	86	66.2	116	86.6	39	84.8	52	65.0	32	64.0	1100	73.3
TOTAL	20	58.8	533	71.4	647	78.8	180	74.4	178	83.6	80	87.0	98	67.6	58	72.5	1794	75.6

Table B.5
1985 Summer Bridge Two-Year Retention by Campus and Ethnicity

Campus	Native American		Black		Mexican American		Other Hispanic		Asian/ Pacific Is.		Filipino		White		Other/No Response		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Bakersfield	0	00.0	16	72.7	23	62.2	2	33.3	2	66.7	4	100.0	12	60.0	2	40.0	61	62.2
Chico	3	50.0	14	37.8	24	58.5	3	50.0	6	75.0	3	75.0	5	31.3	2	50.0	60	49.2
Dominguez Hills	0		19	63.3	18	64.3	4	100.0	4	66.7	12	70.6	4	80.0	2	66.7	63	67.7
Fresno	5	71.4	25	62.5	117	77.0	3	60.0	15	83.3	2	100.0	7	63.6	1	100.0	175	74.2
Fullerton	0		12	40.0	21	46.7	6	75.0	20	74.1	2	66.7	9	56.3	1	33.3	71	53.8
Hayward	0		22	53.7	13	65.0	4	57.1	13	68.4	4	66.7	3	50.0	1	25.0	60	58.3
Humboldt	7	77.8	5	71.4	4	57.1	0	00.0	0	00.0	0	00.0	1	50.0	2	100.0	19	63.3
Long Beach	2	40.0	49	62.0	25	50.0	9	90.0	4	57.1	3	60.0	1	50.0	2	50.0	95	58.6
Los Angeles	3	100.0	21	45.7	80	61.5	21	67.7	82	78.1	14	82.4	9	69.2	39	68.4	269	66.9
Northridge	2	40.0	52	47.3	40	72.7	22	64.7	3	42.9	4	44.4	4	80.0	1	25.0	128	55.9
Pomona	0	00.0	15	60.0	27	43.5	6	66.7	1	50.0	4	100.0	2	100.0	0		55	52.4
Sacramento	0	00.0	6	35.3	4	33.3	2	66.7	10	62.5	1	33.3	1	33.3	0		24	43.6
San Bernardino	1	100.0	3	50.0	7	46.7	0	00.0	1	100.0	0		0	00.0	1	100.0	13	50.0
San Diego	0		22	40.7	25	51.0	6	75.0	13	65.0	16	66.7	1	14.3	3	50.0	86	51.2
San Francisco	2	66.7	17	51.5	4	80.0	4	80.0	10	90.9	6	75.0	0	00.0	7	58.3	50	64.1
San Jose	0	00.0	12	52.2	15	62.5	3	100.0	15	68.2	2	100.0	1	100.0	1	50.0	49	62.8
San Luis Obispo	2	66.7	4	30.8	15	51.7	5	50.0	8	72.7	7	63.6	11	91.7	0	00.0	52	57.8
Sonoma	1	50.0	12	50.0	3	27.3	1	20.0	0	00.0	0		16	47.1	1	50.0	34	43.0
Stanislaus	0		3	30.0	13	59.1	1	100.0	4	100.0	0		2	66.7	0	00.0	23	56.1
TOTAL	28	58.3	329	50.9	478	60.2	102	65.0	211	73.0	84	70.0	89	55.6	66	58.9	1387	59.6

Table B.6
1986 Summer Bridge One-Year Retention by Campus and Ethnicity

Campus	Native American N	Native American %	Black N	Black %	Mexican American N	Mexican American %	Other Hispanic N	Other Hispanic %	Asian/ Pacific Is. N	Asian/ Pacific Is. %	Filipino N	Filipino %	White N	White %	Other/No Response N	Other/No Response %	TOTAL N	TOTAL %
Bakersfield	0		14	63.6	39	84.8	8	66.7	7	87.5	2	66.7	10	62.5	2	66.7	82	74.5
Chico	3	100.0	19	52.8	40	75.5	9	81.8	1	25.0	0		25	75.8	6	54.5	103	68.2
Dominguez Hills	1	100.0	14	37.8	13	65.0	8	66.7	2	50.0	7	100.0	2	66.7	2	66.7	49	56.3
Fresno	5	83.3	39	86.7	134	83.8	10	76.9	22	91.7	2	100.0	12	80.0	4	66.7	228	84.1
Fullerton	3	100.0	26	65.0	39	67.2	9	69.2	24	88.9	5	83.3	14	60.9	4	80.0	124	70.9
Hayward	0	00.0	29	70.7	19	82.6	2	50.0	20	90.9	4	100.0	2	50.0	2	66.7	78	76.5
Humboldt	6	46.2	13	61.9	1	25.0	2	100.0	1	33.3	0		1	100.0	1	100.0	25	55.6
Long Beach	0		53	84.1	41	78.8	9	69.2	8	88.9	10	100.0	2	40.0	2	100.0	125	81.2
Los Angeles	0		31	83.8	89	86.4	30	88.2	28	90.3	5	71.4	2	66.7	23	79.3	208	85.2
Northridge	0	00.0	94	69.6	71	74.7	35	71.4	7	87.5	9	81.8	5	71.4	4	80.0	225	72.1
Pomona	0	00.0	22	71.0	44	78.6	11	78.6	1	100.0	0		1	100.0	1	50.0	80	75.5
Sacramento	0	00.0	18	75.0	23	82.1	6	85.7	3	75.0	4	100.0	1	100.0	1	100.0	56	80.0
San Bernardino	0		7	70.0	14	82.4	3	60.0	3	100.0	0		2	100.0	0		29	78.4
San Diego	0		45	68.2	33	78.6	8	80.0	19	73.1	19	82.6	1	20.0	2	100.0	127	73.0
San Francisco	0		42	84.0	3	75.0	8	47.1	4	80.0	9	90.0	1	100.0	2	66.7	69	76.7
San Jose	0		26	74.3	10	83.3	4	80.0	13	81.3	0		1	50.0	1	100.0	55	77.5
San Luis Obispo	2	100.0	17	68.0	18	78.3	11	100.0	6	75.0	2	100.0	5	83.3	1	100.0	62	79.5
Sonoma	0	00.0	20	90.9	7	50.0	4	57.1	3	100.0	2	66.7	9	69.2	0	00.0	45	70.3
Stanislaus	0		4	66.7	9	81.8	3	100.0	6	85.7	0		2	50.0	0	00.0	24	75.0
TOTAL	20	58.8	533	71.4	647	78.8	180	74.4	178	83.6	80	87.0	98	67.6	58	72.5	1794	75.6

Table B.7
1985 ILE Two-Year Retention by Campus and Admission Basis

	Alternate		Regular		Special		Total	
Campus	N	%	N	%	N	%	N	%
Bakersfield	2	66.7	18	64.3	20	46.5	40	54.1
Chico	0	00.0	68	70.1	40	40.0	108	54.5
Dominguez Hills	3	75.0	29	61.7	32	42.7	64	50.8
Fresno	4	80.0	78	78.0	75	70.8	157	74.4
Fullerton	0	00.0	135	66.2	57	49.6	192	60.0
Hayward	1	33.3	50	51.0	62	58.5	113	54.6
Humboldt	0		3	42.9	16	57.1	19	54.3
Long Beach	0		0		0		0	
Los Angeles	30	73.2	234	70.5	138	61.6	402	67.3
Northridge	0	00.0	222	62.7	133	46.2	355	55.2
Pomona	0		132	69.5	67	51.5	199	62.2
Sacramento	0		77	62.6	47	56.6	124	60.2
San Bernardino	1	33.3	17	45.9	17	42.5	35	43.8
San Diego	1	25.0	172	50.6	117	40.8	290	46.0
San Francisco	3	75.0	146	72.6	144	72.0	293	72.3
San Jose	3	75.0	194	69.5	97	58.1	294	65.3
San Luis Obispo	0		0		0		0	
Sonoma	3	100.0	25	46.3	19	43.2	47	46.5
Stanislaus	1	50.0	29	72.5	21	55.3	51	63.8
TOTAL	52	65.8	1629	64.4	1102	53.1	2783	59.4

Table B.8
1986 ILE One-Year Retention by Campus and Admission Basis

Campus	Alternate		Regular		Special		Total	
	N	%	N	%	N	%	N	%
Bakersfield	1	50.0	1	33.3	42	84.0	44	80.0
Chico	1	100.0	81	77.1	51	62.2	133	70.7
Dominguez Hills	7	70.0	43	76.8	33	54.1	83	65.4
Fresno	12	92.3	52	78.8	53	89.8	117	84.8
Fullerton	2	66.7	96	79.3	79	69.3	177	74.4
Hayward	0		51	85.0	65	76.5	116	80.0
Humboldt	2	100.0	7	100.0	13	59.1	22	71.0
Long Beach	0	00.0	83	76.1	82	73.9	165	74.7
Los Angeles	29	82.9	131	74.0	92	73.0	252	74.6
Northridge	0	00.0	369	77.8	171	67.6	540	74.1
Pomona	0		55	79.7	56	75.7	111	77.6
Sacramento	1	100.0	74	74.7	46	78.0	121	76.1
San Bernardino	0		10	62.5	27	79.4	37	74.0
San Diego	24	72.7	155	68.0	170	65.4	349	67.0
San Francisco	8	80.0	133	86.4	120	77.4	261	81.8
San Jose	4	57.1	121	82.9	88	85.4	213	83.2
San Luis Obispo	0		1	100.0	0		1	100.0
Sonoma	5	55.6	26	72.2	30	63.8	61	66.3
Stanislaus	3	100.0	13	86.7	15	65.2	31	75.6
TOTAL	99	75.0	1502	77.3	1233	71.8	2834	74.7

Table B.9

1985 ILE Two-Year Retention by Admission Basis and Ethnicity

Admission Basis	Native American N	Native American %	Black N	Black %	Mexican American N	Mexican American %	Other Hispanic N	Other Hispanic %	Asian/ Pacific Is. N	Asian/ Pacific Is. %	Filipino N	Filipino %	White N	White %	Other/No Response N	Other/No Response %	TOTAL N	TOTAL %
ILE																		
Alternate	1	50.0	4	44.4	6	66.7	4	80.0	22	78.6	4	80.0	9	60.0	2	33.3	52	65.8
Regular	12	70.6	105	55.9	188	61.6	70	63.6	589	75.8	68	64.2	522	57.9	75	59.5	1629	64.4
Special	14	53.8	299	44.4	287	50.1	69	60.5	218	71.0	43	69.4	129	54.7	43	52.4	1102	53.1
TOTAL	27	60.0	408	46.8	481	54.2	143	62.4	829	74.6	115	66.5	660	57.2	120	56.1	2783	59.4
ILE Eligible (< 25%)																		
Alternate	0	00.0	1	50.0	3	50.0	1	100.0	13	76.5	0	00.0	14	53.8	1	50.0	33	58.9
Regular	7	63.6	34	52.3	61	52.1	22	64.7	408	74.2	40	61.5	382	58.7	49	57.6	1003	63.6
Special	2	25.0	101	47.0	83	53.9	19	50.0	90	78.3	10	71.4	70	52.2	28	53.8	403	55.2
TOTAL	9	45.0	136	48.2	147	53.1	42	57.5	511	74.9	50	62.5	466	57.5	78	56.1	1439	60.9
ILE Marginal (25-35%)																		
Alternate	0	00.0	0	00.0	3	75.0	0		1	100.0	0		2	50.0	1	100.0	7	58.3
Regular	6	60.0	31	66.0	62	68.9	29	78.4	163	80.7	34	72.3	496	61.8	48	65.8	869	66.4
Special	1	33.3	29	53.7	38	69.1	13	68.4	9	90.0	2	40.0	42	56.8	10	50.0	144	60.0
TOTAL	7	50.0	60	58.8	103	69.1	42	75.0	173	81.2	36	69.2	540	61.4	59	62.8	1020	65.4

Table B.10
1986 ILE One-Year Retention by Admission Basis and Ethnicity

Admission Basis	Native American N	Native American %	Black N	Black %	Mexican American N	Mexican American %	Other Hispanic N	Other Hispanic %	Asian/ Pacific Is. N	Asian/ Pacific Is. %	Filipino N	Filipino %	White N	White %	Other/No Response N	Other/No Response %	TOTAL N	TOTAL %
ILE																		
Alternate	0		12	66.7	10	76.9	4	66.7	33	84.6	3	100.0	28	71.8	9	64.3	99	75.0
Regular	6	50.0	104	72.7	132	67.3	69	75.8	501	86.2	73	78.5	551	74.8	66	74.2	1502	77.3
Special	16	72.7	399	68.6	303	74.3	70	60.9	225	87.5	48	71.6	124	64.2	48	64.9	1233	71.8
TOTAL	22	64.7	515	69.3	445	72.1	143	67.5	759	86.5	124	76.1	703	72.5	123	69.5	2834	74.7
ILE Eligible (< 25%)																		
Alternate	0		2	100.0	1	50.0	2	100.0	25	80.6	0	00.0	27	71.1	3	75.0	60	75.0
Regular	6	60.0	65	73.9	132	71.4	79	86.8	678	88.4	81	83.5	487	69.9	108	86.4	1636	79.4
Special	8	61.5	156	67.2	178	73.0	54	71.1	191	88.4	14		132	66.3	47	73.4	780	73.2
TOTAL	14	60.9	223	69.3	311	72.2	135	79.9	894	88.2	95	79.8	646	69.2	158	81.9	2476	77.3
ILE Marginal (25-35%)																		
Alternate	0		0		2	50.0	0	00.0	2	100.0	1	100.0	6	50.0	0	00.0	11	52.4
Regular	7	87.5	43	84.3	85	72.0	41	77.4	184	87.6	75	87.2	591	74.6	52	82.5	1078	78.1
Special	3	75.0	54	71.1	47	81.0	18	72.0	23	79.3	12		87	75.7	14	73.7	258	76.1
TOTAL	10	83.3	97	76.4	134	74.4	59	74.7	209	86.7	88	88.0	684	74.4	66	79.5	1347	77.4

Table B.11
1985 ILE Two-Year Retention by Campus and Ethnicity

Campus	Native American N	Native American %	Black N	Black %	Mexican American N	Mexican American %	Other Hispanic N	Other Hispanic %	Asian/ Pacific Is. N	Asian/ Pacific Is. %	Filipino N	Filipino %	White N	White %	Other/No Response N	Other/No Response %	TOTAL N	TOTAL %
Bakersfield	1	50.0	9	52.9	14	48.3	0	00.0	2	33.3	5	100.0	7	77.8	2	50.0	40	54.1
Chico	2	33.3	11	37.9	12	35.3	2	40.0	8	88.9	3	75.0	68	63.6	2	50.0	108	54.5
Dominguez Hills	1	100.0	22	40.7	15	68.2	4	50.0	13	68.4	6	50.0	2	25.0	1	50.0	64	50.8
Fresno	2	66.7	21	67.7	55	68.8	3	75.0	31	88.6	0		41	82.0	4	50.0	157	74.4
Fullerton	1	50.0	16	44.4	23	46.0	9	81.8	78	72.2	4	57.1	56	57.7	5	55.6	192	60.0
Hayward	2	66.7	28	46.7	11	68.8	11	64.7	32	66.7	4	57.1	22	43.1	3	60.0	113	54.6
Humboldt	3	60.0	2	40.0	3	50.0	0		0	00.0	0		10	62.5	1	50.0	19	54.3
Long Beach	0		0		0		0		0		0		0		0		0	
Los Angeles	0		31	47.7	112	61.5	30	69.8	158	76.7	19	86.4	17	65.4	35	66.0	402	67.3
Northridge	1	25.0	75	40.8	53	61.6	22	51.2	78	66.7	10	71.4	111	61.0	5	38.5	355	55.2
Pomona	3	75.0	14	43.8	46	52.3	16	72.7	84	73.7	8	100.0	24	52.2	4	66.7	199	62.2
Sacramento	0		21	58.3	9	37.5	2	40.0	28	84.8	2	66.7	52	57.1	10	71.4	124	60.2
San Bernardino	1	100.0	6	46.2	12	42.9	0	00.0	1	50.0	0		13	40.6	2	66.7	35	43.8
San Diego	5	83.3	53	39.8	60	43.2	19	59.4	39	59.1	22	50.0	80	43.2	12	46.2	290	46.0
San Francisco	2	100.0	38	62.3	8	57.1	14	73.7	159	84.6	18	66.7	32	57.1	22	57.9	293	72.3
San Jose	2	50.0	43	53.1	30	53.6	8	72.7	112	74.7	14	70.0	75	68.8	10	52.6	294	65.3
San Luis Obispo	0		0		0		0		0		0		0		0		0	
Sonoma	0	00.0	15	60.0	3	23.1	1	25.0	0	00.0	0		27	52.9	1	33.3	47	46.5
Stanislaus	1	100.0	3	33.3	15	75.0	2	100.0	6	100.0	0		23	62.2	1	20.0	51	63.8
TOTAL	27	60.0	408	46.8	481	54.2	143	62.4	829	74.6	115	66.5	660	57.2	120	56.1	2783	59.4

Table B.12
1986 ILE One-Year Retention by Campus and Ethnicity

Campus	Native American		Black		Mexican American		Other Hispanic		Asian/ Pacific Is.		Filipino		White		Other/No Response		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Bakersfield	0		10	83.3	21	77.8	3	60.0	5	100.0	1	100.0	4	80.0	0		44	80.0
Chico	0		11	44.0	26	76.5	5	71.4	3	75.0	0		82	77.4	6	50.0	133	70.7
Dominguez Hills	0		36	57.1	10	66.7	5	71.4	8	72.7	6	85.7	16	76.2	2	66.7	83	65.4
Fresno	4	100.0	8	80.0	39	76.5	3	100.0	33	94.3	1	100.0	23	82.1	6	100.0	117	84.8
Fullerton	2	66.7	29	74.4	23	65.7	12	85.7	57	81.4	2	40.0	48	71.6	4	80.0	177	74.4
Hayward	0		30	66.7	16	80.0	4	66.7	45	93.8	9	100.0	10	66.7	2	100.0	116	80.0
Humboldt	4	57.1	6	85.7	1	33.3	0		3	75.0	0		6	85.7	2	66.7	22	71.0
Long Beach	2	100.0	44	74.6	31	72.1	8	61.5	18	64.3	12	100.0	44	77.2	6	85.7	165	74.7
Los Angeles	1	50.0	23	59.0	62	72.9	19	65.5	84	85.7	10	83.3	13	68.4	40	74.1	252	74.6
Northridge	2	50.0	113	69.3	51	65.4	19	63.3	134	88.7	14	66.7	194	74.0	13	65.0	540	74.1
Pomona	0	00.0	22	75.9	30	76.9	15	71.4	26	92.9	0		15	83.3	3	50.0	111	77.6
Sacramento	0	00.0	10	66.7	23	71.9	5	71.4	20	100.0	6	100.0	51	71.8	6	85.7	121	76.1
San Bernardino	2	100.0	5	71.4	13	92.9	3	100.0	4	100.0	0		9	50.0	1	50.0	37	74.0
San Diego	1	100.0	66	61.1	60	69.0	15	51.7	80	77.7	26	66.7	91	67.4	10	52.6	349	67.0
San Francisco	0		45	81.8	5	71.4	12	63.2	137	91.3	23	74.2	26	72.2	13	61.9	261	81.8
San Jose	2	66.7	38	86.4	17	81.0	8	88.9	94	86.2	13	81.3	32	71.1	9	100.0	213	83.2
San Luis Obispo	0		0		0		1	100.0	0		0		0		0		1	100.
Sonoma	0	00.0	16	88.9	7	53.8	4	57.1	4	100.0	1	33.3	29	64.4	0	00.0	61	66.3
Stanislaus	2	100.0	3	60.0	10	76.9	2	100.0	4	80.0	0		10	71.4	0		31	75.6
TOTAL	22	64.7	515	69.3	445	72.1	143	67.5	759	86.5	124	76.1	703	72.5	123	69.5	2834	74.7

Table B.13
1985 ILE Two-Year Retention by Campus and Comparison Group

	ILE		ILE Eligible (<25 Percentile)		ILE Marginal (25-35 Percentile)		1984 ILE Eligible (<25 Percentile)	
Campus	N	%	N	%	N	%	N	%
Bakersfield	40	54.1	19	59.4	6	54.5	34	41.5
Chico	108	54.5	19	59.4	58	67.4	103	58.9
Dominguez Hills	64	50.8	16	50.0	6	54.5	55	56.1
Fresno	157	74.4	80	65.6	67	75.3	187	66.1
Fullerton	192	60.0	34	54.8	59	57.8	169	65.0
Hayward	113	54.6	14	56.0	30	68.2	116	67.8
Humboldt	19	54.3	19	52.8	17	63.0	52	67.5
Long Beach	0		389	63.3	152	68.8	339	65.2
Los Angeles	402	67.3	136	64.8	32	68.1	212	71.6
Northridge	355	55.2	130	59.1	93	59.2	353	60.8
Pomona	199	62.2	103	58.2	84	68.3	256	63.7
Sacramento	124	60.2	49	59.0	57	54.3	116	58.0
San Bernardino	35	43.8	12	60.0	25	69.4	47	55.3
San Diego	290	46.0	119	56.7	105	60.3	226	55.1
San Francisco	293	72.3	127	67.2	90	72.6	347	67.4
San Jose	294	65.3	61	69.3	62	74.7	180	75.3
San Luis Obispo	0		102	54.8	64	66.7	100	55.6
Sonoma	47	46.5	5	33.3	7	43.8	34	44.7
Stanislaus	51	63.8	5	45.5	6	66.7	40	58.0
TOTAL	2783	59.4	1439	60.8	1020	65.3	2966	62.9

Table B.14
1986 ILE One-Year Retention by Campus and Comparison Group

Campus	ILE		ILE Eligible (<25 Percentile)		ILE Marginal (25-35 Percentile)		1984 ILE Eligible (<25 Percentile)	
	N	%	N	%	N	%	N	%
Bakersfield	44	80.0	21	52.5	20	74.1	53	64.6
Chico	133	70.7	36	75.0	69	82.1	135	77.1
Dominguez Hills	83	65.4	23	62.2	20	69.0	68	69.4
Fresno	117	84.8	157	80.5	76	79.2	234	82.7
Fullerton	177	74.4	153	78.5	93	75.6	192	73.8
Hayward	116	80.0	49	83.1	42	76.4	148	86.5
Humboldt	22	71.0	30	68.2	21	75.0	61	79.2
Long Beach	165	74.7	458	78.7	169	78.2	414	79.6
Los Angeles	252	74.6	330	80.7	61	87.1	256	86.5
Northridge	540	74.1	154	73.7	131	70.4	432	74.4
Pomona	111	77.6	241	77.5	92	80.7	304	75.6
Sacramento	121	76.1	90	76.9	91	73.4	147	73.5
San Bernardino	37	74.0	49	67.1	33	71.7	62	72.9
San Diego	349	67.0	209	72.3	146	79.3	291	71.0
San Francisco	261	81.8	193	83.9	123	83.7	420	81.6
San Jose	213	83.2	154	79.0	83	77.6	210	87.9
San Luis Obispo	1	100.0	85	75.9	48	75.0	122	67.8
Sonoma	61	66.3	10	66.7	12	75.0	51	67.1
Stanislaus	31	75.6	34	75.6	17	68.0	47	68.1
TOTAL	2834	74.7	2476	77.3	1347	77.4	3647	77.3

Table B.15
1984 ILE Two-Year Retention by Admission Basis and Ethnicity

Admission Basis	Native American		Black		Mexican American		Other Hispanic		Asian/ Pacific Is.		Filipino		White		Other/No Response		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ILE Eligible (< 25%)																		
Alternate	0		1	100.0	1	50.0	0		1	100.0	1	100.0	13	46.4	2	100.0	19	54.3
Regular	11	52.4	72	55.0	126	60.0	58	65.9	750	79.2	75	61.0	680	60.4	94	71.2	1866	67.2
Special	10	66.7	307	49.9	204	50.7	62	53.9	212	77.7	45	64.3	192	57.7	45	57.0	1077	56.6
Total	21	58.3	380	50.9	331	53.9	120	59.1	963	78.9	121	62.4	885	59.6	141	66.2	2962	62.8
ILE Marginal (25-35%)																		
Alternate	0		0		0		0		1	100.0	0		2	40.0	0		3	50.0
Regular	3	50.0	27	55.1	59	59.0	24	72.7	136	79.1	35	64.8	506	63.5	20	47.6	810	64.6
Special	1	100.0	33	46.5	46	61.3	9	42.9	22	84.6	13	72.2	52	49.5	10	55.6	186	55.5
Total	4	57.1	60	50.0	105	60.0	33	61.1	159	79.9	48	66.7	560	61.7	30	50.0	999	62.7

Table B.16

1984 ILE One and Two-Year Retention by Campus and Comparison Group

One Year Retention

Campus	ILE Eligible (<25 Percentile) N	ILE Eligible (<25 Percentile) %	ILE Marginal (25-35 Percentile) N	ILE Marginal (25-35 Percentile) %
Bakersfield	53	64.6	9	60.0
Chico	135	77.1	61	77.2
Dominguez Hills	68	69.4	11	68.8
Fresno	234	82.7	73	75.3
Fullerton	192	73.8	85	71.4
Hayward	148	86.5	46	78.0
Humboldt	61	79.2	22	73.3
Long Beach	414	79.6	122	77.2
Los Angeles	256	86.5	50	84.7
Northridge	432	74.4	137	77.8
Pomona	304	75.6	80	72.7
Sacramento	147	73.5	75	72.1
San Bernardino	62	72.9	20	64.5
San Diego	291	71.0	158	73.8
San Francisco	420	81.6	100	79.4
San Jose	210	87.9	50	75.8
San Luis Obispo	122	67.8	77	80.2
Sonoma	51	67.1	14	66.7
Stanislaus	47	68.1	7	38.9
Total	3647	77.3	1197	75.1

Two Year Retention

Campus	ILE Eligible (<25 Percentile) N	ILE Eligible (<25 Percentile) %	ILE Marginal (25-35 Percentile) N	ILE Marginal (25-35 Percentile) %
Bakersfield	34	41.5	8	53.3
Chico	103	58.9	47	59.5
Dominguez Hills	55	56.1	5	31.3
Fresno	187	66.1	67	69.1
Fullerton	169	65.0	67	56.3
Hayward	116	67.8	37	62.7
Humboldt	52	67.5	17	56.7
Long Beach	339	65.2	109	69.0
Los Angeles	212	71.6	45	76.3
Northridge	353	60.8	107	60.8
Pomona	256	63.7	76	69.1
Sacramento	116	58.0	62	59.6
San Bernardino	47	55.3	17	54.8
San Diego	226	55.1	123	57.5
San Francisco	347	67.4	89	70.6
San Jose	180	75.3	42	63.6
San Luis Obispo	100	55.6	63	65.6
Sonoma	34	44.7	12	57.1
Stanislaus	40	58.0	6	33.3
Total	2966	62.9	999	62.7

APPENDIX C

1988 SUMMER BRIDGE/ILE STUDENT SURVEY

CSU SUMMER BRIDGE/ILE STUDENT SURVEY
Far West Laboratory for Educational Research and Development

We would appreciate your helping us to evaluate the Summer Bridge and ILE programs on your campus by answering the following questions. THIS IS NOT A TEST AND YOUR ANSWERS WILL NOT AFFECT YOUR GRADES IN ANY WAY. All information on this survey will be kept strictly confidential. Thank you.

Please mark your answers on the answer sheet using a #2 pencil.

Please fill in the following information on your answer sheet.

NAME:

SEX:

CLASS LEVEL: (Mark only one answer.)

FR = Freshman
SO = Sophomore
JR = Junior
SR = Senior

SOCIAL SECURITY NUMBER:

LANGUAGE CODE: To the right of Social Security Number, under ABC, please indicate your native (first) language by choosing one of the following three-digit codes:

001	English	008	Pacific Island language (such as Tongan or Samoan)
002	Spanish	009	Filipino language (such as Tagalog or Ilocano)
003	Chinese	010	Native American language
004	Vietnamese	011	Arabic
005	Cambodian	012	Farsi (Persian)
006	Laotian	013	Other
007	Other Asian language (such as Malay, Korean, Japanese, Hindi, Thai)		

Please answer questions 1 through 3 by filling in the appropriate bubble on your answer sheet.

1. Which programs have you participated in at this university?
   a. Summer Bridge only
   b. Intensive Learning Experience (ILE) only
   c. Both Summer Bridge and ILE
   d. Neither Summer Bridge nor ILE

2. How were you invited to Summer Bridge?
   a. By mail
   b. By phone
   c. In person
   d. A combination of the above
   e. Not invited to Summer Bridge

3. The subject of this class is
   a. English
   b. Math

Please select the answer which most closely matches how you feel about the statement.

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
4. This class is too difficult.	a	b	c	d	e
5. I am satisfied with the teaching in this class.	a	b	c	d	e
6. I am receiving much needed help in English reading and writing.	a	b	c	d	e
7. I am receiving much needed help in math skills.	a	b	c	d	e
8. I am confident that I will do very well in my baccalaureate English course.	a	b	c	d	e
9. I am confident that I will do very well in my baccalaureate (freshman) math course.	a	b	c	d	e
10. My General Education classes this term are too difficult.	a	b	c	d	e
11. Overall, I enjoy the classes I am taking this term.	a	b	c	d	e
12. I am satisfied with the quality of friendships I have made at this university.	a	b	c	d	e
13. I am confident that I will graduate from college.	a	b	c	d	e
14. I made the right decision in coming to this university.	a	b	c	d	e
15. Overall, I am satisfied with the quality of teaching at this university.	a	b	c	d	e
16. It is important for me to graduate from college.	a	b	c	d	e
17. I speak and understand English very well.	a	b	c	d	e
18. I am having difficulty financing my college education.	a	b	c	d	e
19. My contacts with faculty in class or in tutorials have had a positive influence on my personal life.	a	b	c	d	e
20. My contacts with faculty in class or in tutorials have had a positive influence on my academic growth.	a	b	c	d	e
21. My contacts with faculty outside of class have had a positive influence on my personal life.	a	b	c	d	e
22. My contacts with faculty outside of class have had a positive influence on my academic growth.	a	b	c	d	e

23. What do you think your GPA will be when you graduate?
    a. 2.0 to 2.5
    b. 2.6 to 3.0
    c. 3.1 to 3.5
    d. 3.6 to 4.0
    e. I don't expect to graduate.
24. How many times per week do you meet with other students to study?
    a. Never
    b. Once
    c. 2 times
    d. 3 times
    e. 4 or more times
25. How many hours per day (on average) do you study outside of class?
    a. Less than 1
    b. 1
    c. 2
    d. 3
    e. 4 or more
26. How many times did you meet with faculty outside of class last term?
    a. Never
    b. Once
    c. 2 or 3 times
    d. 4 or 5 times
    e. 6 or more times
27. For what reasons did you usually meet with faculty outside of class last term?
    a. For social reasons
    b. For academic reasons
    c. For both social and academic reasons
    d. I did not meet with faculty last term.
28. What student clubs or organization(s) have you been involved in? (Please mark only one answer.)
    a. Social or service-oriented, e.g., fraternity/sorority
    b. Student government or academic
    c. Both a and b
    d. Neither a nor b
29. What student clubs or organization(s) have you been involved in? (Note: Question 29 is the same as 28, but choices are different. Please mark only one answer.)
    a. Cultural or ethnic
    b. Recreational or athletic
    c. Both a and b
    d. Neither a nor b
30. How many hours per week (on average) do you spend in extracurricular activities (such as clubs, organizations, athletics, or recreational activities)?
    a. None
    b. 1
    c. 2 to 3
    d. 4 to 5
    e. 6 or more
31. How many times last term did you use the Learning Assistance or Tutorial centers on campus?
    a. Never
    b. Once
    c. 2 to 3 times
    d. 4 to 5 times
    e. 6 or more times

32. How many times last term did you use the services of the Educational Opportunity Program (EOP)?
  - a. Never
  - b. Once
  - c. 2 to 3 times
  - d. 4 to 5 times
  - e. 6 or more times

33. How many times last term did you use student counseling services other than EOP, e.g. Academic Advising?
  - a. Never
  - b. Once
  - c. 2 to 3 times
  - d. 4 to 5 times
  - e. 6 or more times

34. How many times last term did you use the library?
  - a. Never
  - b. Once
  - c. 2 to 3 times
  - d. 4 to 5 times
  - e. 6 or more times

35. For all of your courses, how many class sessions did you miss last term?
  - a. None
  - b. 1 to 3
  - c. 4 to 6
  - d. 7 to 9
  - e. 10 or more

36. What are your plans for your education?
  - a. Interrupt my college studies and reenroll at a later time
  - b. Transfer to a two-year college
  - c. Transfer to another university
  - d. Quit college to pursue other activities
  - e. Graduate from this university

37. Where do you live?
  - a. On campus
  - b. Off-campus, but within walking distance
  - c. I commute to campus (drive or take public transportation).

38. How many hours per week are you employed?
  - a. None
  - b. 1 to 9
  - c. 10 to 19
  - d. 20 to 29
  - e. 30 or more

39. How many years have you lived in the United States?
  - a. 2 or fewer
  - b. 3 to 5
  - c. 6 to 9
  - d. 10 or more, but not all my life
  - e. All my life